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# Cognitive Civilization:

## I-Language, E-Language; I-America, E-America

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### 1. Introduction

Well-known scholars help clear paths to war or peace, tolerance or intolerance, reform or reaction. They may consciously attempt to provide moral guidance by taking a public stand on political issues, but their moral path-finding works primarily through the transformation of their scientific and metaphysical concepts into “folk theories”—those simplified and sometimes distorted versions of their ideas that quietly revolutionize ways of looking at the world.

“Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist”—wrote a famous economist, but the axiom holds true for highly regarded scientists and writers whatever their field of expertise. But the permeability of academic abstractions into more common conceptions of the world is generally underestimated, and not enough attention has been devoted to how such processes actually work—how abstract ideas, world events, and common beliefs come together in our minds.

Mental processes, in what are usually considered widely divergent spheres of human activity such as scientific theorizing, political activity, and individual moral development most likely do interact, and we need explanations—hypotheses to work with—that give structure to a variety of inputs, or otherwise we must simply shrug our shoulders and allow the crudest of stereotypes and personal presumptions to prevail. That Keynes’s line above is so often repeated, with little else more to add, is a good indication of how little else there is in the popular imagination, besides that lonely phrase, to express a crucial idea. Yet how the sum of these processes in their entirety, affect a society’s ethical and intellectual evolution, is nothing less than the cognitive process of civilization.

The preliminary sketch offered here for analyzing this process is broadly divided into three aspects: 1) the mental habitat of epistemology and metaphor, 2) a phase of cognitive construction; and 3) moral resolution and cognitive homeostasis. The analysis thus derived indicates that seemingly separate arenas of human endeavor are in fact quite intimately related, and also that the fabric of the big picture of social forces on the one hand, and the threads of individual cognition and personal initiative on the other hand, are seamlessly intertwined without reason to believe in any inherent contradiction. Furthermore, the approach suggests there is no guaranty that intellectual discoveries lead to mental maturity and moral wisdom among the general public, nor even among academicians, and that what science really needs, or more importantly, what makes that science meaningfully employed, is not so much an understanding of scientific concepts per se by the members of a society, but an understanding of what underlies their own changing cognitive trends as a community—trends that have the power to transform human endeavor into something ethical and constructive, or the opposite.

### 2. An Outline of Cognitive Civilization

#### 2.1 Authoritative Epistemologies

First we consider how epistemological systems—such as that of Plato or Aristotle or Kant—act as an intellectual and moral storehouse for the imagination, partially corresponding to what in cognitive

linguistics is generally called a domain or more specifically an “abstract domain” (Langacker 1987) and in mental space theory is called “generic space” (Fauconnier 1997). A domain is the background knowledge necessary to understand the meaning of a word-based concept, such as “voters,” which requires some comprehension of representative democracy, and an inkling of what the act of voting entails. Alternatively, a generic space, according to that theory, is the common conceptual background between “input spaces” from which a “conceptual blend” is concocted. For those who study analogy, it is the common structure or “analogical abstraction” extracted from the base and target in an act of “re-representation” (Gentner 2003). That is to say, in order to bring two things together to form a metaphor or a new concept, there must be some sort of common ground as I.A. Richards (1936) pointed out long ago; a framework for deriving compatibilities, or else the base and target simply won’t hold together in our minds as a single entity.

### 2.1.1.1 Linguistic and Cultural Matrix

But whatever inputs have in common, whether it be “western democracies with labor unions and voters” (Fauconnier and Turner 2002:47) or even “a moving individual and his position” (ibid. 2002:41), these ideas are not necessarily conceived of in the same way by everyone, particularly across different languages, as accumulating studies of “ethnosyntax” or cross-cultural linguistics (Enfield 2002, Everett 2005, Wierzbicka 1997, Gentner and Goldin-Meadow 2003, Bowerman and Levinson 2001, Niemeier and Dirven 2000, Pütz and Verspoor 2000, Gumperz and Levinson 1996) and visual-spatial conceptualizations show (Kitayama et al. 2003, Nisbett, et al. 2001, Anggoro and Gentner 2004, Lucy 1992). Ultimately, the common conceptual background that two “input spaces” supposedly contains requires a shared cultural-cognitive background of speaker and listener; without that, the so-called generic space that the speaker believes exists, exists in his own mind but not necessarily that of who is listening.

That is why intercultural communication is difficult; humor often fails to span languages because the “generic” concepts are simply not generic. And so much more so when it comes to the storehouse of elaborate cognitive models, or the authoritative epistemologies that exist in different societies, which are the result of a particular philosophical heritage and an educational system emphasizing those metaphors over others in a deliberated curriculum for construing the world.

The term “generic space” therefore, is somewhat counterintuitive by the standards of everyday language; “Generic” conveys an impression of plain vanilla knowledge without being culturally bound or language specific—indeed, the term “Global Generic” is also employed exacerbating that impression. A global generic goes one step further back than simple generic space in finding commonalities between inputs at a more abstract level, and while some of them might be truly universal, others may not be completely so. Those commonalities include what is “Generic” in the word’s original adjectival sense: characteristic of a broad based class, kin, or genus. or in the case here, of “Genera” implying a shared system of categorization. Thus the concept of global generic overlaps somewhat with what Eleanor Rorsch (1978), for instance, calls “superordinate” categories (such as the wider concept of “furniture” opposed to the more tangible, basic level of “chair”), or what others call “hypernymy” in a person’s comprehension of the taxonomic hierarchy of the world.

Ronald Langacker’s (1987) “cognitive grammar” emphasizes the multidimensionality of such epistemological structure by using the term “matrix” to refer to the set of overlapping domains necessary to fully grasp the meaning of a concept. To return to our example, in any given context, an adequate comprehension of the term “voters” requires understanding: 1) voting procedure or at least some notion on a motor level of the act called “voting”; 2) the abstraction known as representative democracy and assumptions to be made about the level of suffrage rights; 3) the time dependent nature of voter identity based on elections; and 4) the implied existence of political interests and counterfactual possibilities at

stake hanging upon the outcome of elections. And we should note here that such concepts, and their unquestioned validity, are inseparable from the philosophical tenets which uphold them.

The point is that depending on where one grows up, those conceptions will vary, and much more so when it comes to other ideas such as religion and humor. Whether a message employing a particular concept will travel as intended to another person depends on his matrix of domains being sufficiently similar to that of the transmitter. John Austin and John Searle have also spoken of the need to acquire the necessary "background" of culturally determined meanings to understand words related to the game of "cricket" for instance, as well as less obvious but acquired conceptualizations of gravity, space, and inter-entity relationships that underlie the vast array of assumptions we make in daily life (reviewed in Taylor 2002).

### 2.1.2 Cognitive Procedure

Naturally then, even our discussion of the term "domain" has its own matrix of background knowledge or pragmatic presumptions; and if we now shift our perspective to another domain within that matrix of understanding, this time to the viewpoint of information processing, it appears that the cognitive impact of domains is similar to that of "top-down" information processing (versus "bottom up" processing) on how we interpret any given montage of perceptions. Or redefined in terms of the science of memory, these epistemological practices are the key intersection points of semantic, declarative memory and cognitive, procedural memory that are nurtured within a particular socio-cultural environment. In other words, these mental devices are a combination of 1) interpretive habits and 2) specific words that are pertinent to those cognitive procedures, which together are distinguishing marks of a civilization. George Lakoff and Mark Johnson (1999) with their exposition of linguistically contoured philosophical meaning, come close to the spirit of the idea here, that a large part of epistemology is cognitive custom.

These learned habits are thus similar to the concept of "scripts," "narrative structure," or "genre" as used in discourse analysis, where a body of information has an expected ordering which greatly aids in its comprehension. And it should be clear that script and genre characteristics may vary with language, just as the expected format of humor or poetry varies across languages. The development of construction grammars in cognitive linguistics, an awakening to the highly idiomatic, procedural nature of language, or the marriage of particular meaning with extended, particular forms, also hints at the idea that philosophical systems may also have cognitive idioms and genres, which, if we are familiar with, does much to aid our comprehension of the line of reasoning, where otherwise, we might be merely swimming in the details.

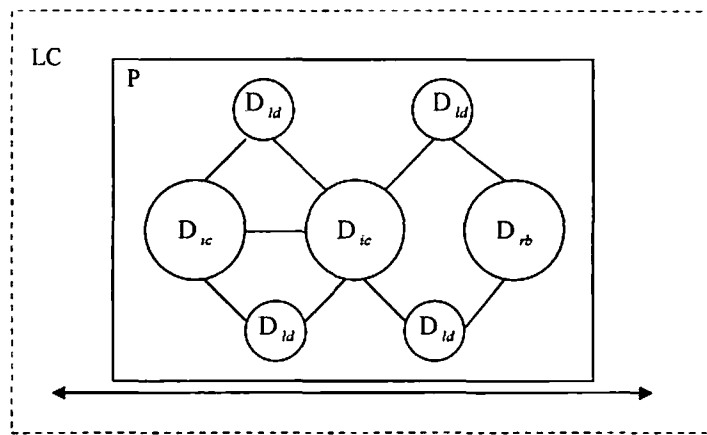
### 2.1.3 Identity Constructors

Jacques Lacan's (1991) idea of "master signifier" is useful in explaining the specific words that go along with those cognitive procedures, although he may have disagreed with how he will be presented here, and thus we will call them "identity constructors." For our purposes, master signifiers or identity constructors may be thought of as a particularly key kind of global generic and superordinate category. They are the word-concepts that are most intimately entwined with a person's sense of self-identity—his "symbolic self" to use S. I. Hayakawa's term (1953)—such as national and cultural identifiers, linked to qualitative descriptors such as concepts of virtue and vice. Lacan considered master signifiers to be empty signifiers, that is signifiers without a signified (which might also be one way of psychologically defining Plato's Forms), and they may be better defined in terms of the strong emotions they evoke, than by objective parameters.

These identity constructors may be said to be nodes in a vast semantic network tied to autobiographical memory, but as Lacan pointed out, master signifiers themselves are beyond

definition;—they are linguistically bound, intuitive concepts of identity, and thus “shift” together when the meaning of a master signifier evolves semantically. Lacan spoke of the “master discourse,” and the use of the word “master” suggests that these signifiers are treated as unquestioned “givens” in a discourse revolving around power relationships. If we may add another perspective here, they might be called the cultural counterparts of what Thomas Kuhn (1962) called “received beliefs” in science—the key underlying nodes of a scientific paradigm, but in our case, a cognitive-civilizational paradigm. Such identity constructors combine with epistemological systems to create powerfully motivating conceptual blends, where received beliefs and identity constructors become indirectly linked through value-laden descriptors.

Figure 1.



LC: linguistic and cultural epistemological contours of “what we know”

P: cognitive, procedural memory

D: semantic, declarative memory

*ic*: identity constructors    *rb*: received beliefs

*id*: linked descriptors in the associative network

#### 2.1.4 The Mental Habitat of Cognitive Civilization

To summarize, among varied aspects of perspective, context, category, cognitive procedure, and identity, it is epistemological frames not only in the intuitive sense that Charles Fillmore (1982) or that Bartlett (1932) suggested earlier with his schemas, but also formalized knowledge systems, and their concomitant metaphors, charged with moral content, that we are concerned with here. These culturally and linguistically contoured epistemological frameworks reach beyond stationary conceptions of taxonomy to influence what are seemingly intuitive, immediate, gestalt-like frames of mind—which if we may add, are not so dissimilar to what Tversky and Kahneman (1983) called “natural assessments” within their framework of “heuristic attributes,” which will be discussed later.

In the multiplicity of overlapping concepts which stretch before us like a cognitive chain—“background,” “abstract domain,” “generic space,” and “analogical abstraction”; “perspectivization,” “semantic frame,” “pragmatic presupposition,” and “heuristic attribute”; “paradigm,”

“metanarrative,” and “lifeworld”; “genre,” “script,” “narrative structure,” and “language game”; “master signifier,” “superordinate category,” “hypernymy,” “maximal scope,” and so forth, not to mention countless others since every scholar employs his own conceptual signature—what is of concern here is the cultural element threading them together, the quality of historicity (even if recognizably so only when placed in a rather long time frame) of any concept, and not timeless universalities.

For to put it bluntly, we cannot really do anything about the biologically fixed and universal aspects of cognition, but we can change for the better or worse those aspects culturally influenced, and that is why their study is so meaningful. And it is only by thinking about our social problems from the comprehensive perspective of civilization, or the interaction between culture and the direction we head in as an entire society over time, that we can adequately address the individual’s problem as well. Thus, the cognitive ‘zone’ we speak of here is that of cognitive civilization.

## 2.2 ‘Superordinate’ Metaphors

Metaphors come from shared elements of human experience based upon our bodily existence—we cannot transcend the configuration of our senses. As Joseph Grady (2005) points out, there are “primary metaphors”—basic, widespread metaphors that are the building blocks of cognition, embedded in the norms of our language, conflated with experience from early childhood. But which particular metaphors—especially those that are a blend of primary metaphors, i.e., complex metaphors—come to be bestowed with elevated social significance in a society, chosen from the vast reparatory of conceptual possibilities that our bodily existences provide, is a function of that particular culture and its intellectual leadership, no less so than how gymnastic capabilities, though constrained by the human body, depend upon which athletic functions are actually honed by training, practice, and coaching.

### 2.2.1 Metaphorical Genius as Historical Event

If we survey the history of philosophy, we find that every epistemological framework comes with easy to grasp metaphors that have made an indelible mark on how people think or once thought. And whether rationalist, empiricist, pragmatic, intuitionist, materialist, or for that matter, even scholastic or Taoist, we must not forget that individual genius and institutionalized teaching played a role in making those metaphors canonical.

That goes for Plato and his “Allegory of the Cave” where reality is divided between the subterranean world of perceived shadows and the unseen fire of truth; the same must be said of the medieval geocentric theory of the solar system with Man blessed at the center of all things; and later Descartes and Spinoza provide us with a metaphor of mind transcending darkness and light, reaching out from the center with confident geometrical precision in an attempt to replace, with the power of the human intellect, the spiritual comfort lost with the disappearance of Man’s celestial centrality—images that influenced everything from the organization of universities to the design of military fortresses.

More recently, one can point to Levi-Strauss’s architecture of invisible correspondences of meaning and a sort of ‘seeing through to’ truth, versus Foucault’s archaological layers of knowledge awaiting excavation in an almost tactile, multidirectional ‘groping for’ understanding. Rephrased, we might call it structuralism’s ageless, repetitive, mirroring ‘verticality’ contrasted to discourse’s fluctuating, time-sensitive ‘horizontality.’ Or perhaps we could propose modernism’s “solidity” versus postmodernism’s fluidity or rather “fractality”—and so forth; these are implicit images—whose precise conceptualization may vary with individual interpretation, but which nevertheless affect the general intellectual climate of the times.

And while the above examples have been taken from the European tradition, we could also look elsewhere and find other epistemological metaphors, such as that of the luminous “bubble” among the Jains of India or the “tree of knowledge” spanning the ancient world. All these metaphors, regardless of

their intuitive basis, owe their birth as elaborate epistemologies to particular individuals, and their fate to a particular socio-cultural milieu.

To summarize, these concepts may be 1) explicitly outlined by their creators as in Plato's epistemological dualism, Aristotle's syllogistic tripartism, or Russell's logical 'atomism'; 2) only implicit in their philosophical approach as in the more modern examples above of 'axial' orientation; or 3) simplified and sometimes interpreted differently from intended, but nevertheless influential as a folk tradition of knowledge, where epistemology may at times be viewed with suspicion according to Marx, as the product of an overweight minority spouting falsehoods from the backs of the emaciated majority; or, in an earlier age of 'Enlightenment' and 'rule of law' in the 18<sup>th</sup> century, to be meekly accepted from a stern, Moses-like Kant, judging and pronouncing philosophical verdicts like a court magistrate of truth with his commandments of Pure Reason.

### 2.2.2 Metaphorical Mode

But they need not be restricted to visualized images. They may be motor-spatial-time relations or what some call the "somatosensory modality" (Damasio 1999)—or what others call "proprioceptal," orientational, or "event-structure concepts" (Lakoff and Johnson 1999)—such as Plato's internally directed movement, closing in upon truth, an 'inwardness' or analytic introversion; and Aristotle's externally directed, spreading out and categorically covering truth, an 'outwardness' or inductive extroversion. To put it somewhat crudely, these implicit metaphors are readily accessible to someone born blind and deaf, but require the experience of limb extension and bodily movement. Other superordinate metaphors might require hearing for a musically conceived relation of parts to whole, or may evoke a sense of smell to conceptualize intuition and insight. They are "image schemas" (Johnson 1987) but not just any image schemas; they are those tied together with an epistemological approach often reflecting an intellectual style, such as a sensory preference for vision or hearing, or a psychological preference for system building versus system razing, or holistic versus splitting analytic methods. Those schemas or metaphors may be simple or complex aggregations; what counts is their melding with a larger, formalized philosophical system. The reason why the term "superordinate" has been employed is because they are made for the purpose of linking and contrasting superordinate categories.

### 2.2.3 Metaphorical Status: Living, Dead, or Ghost

Some of these metaphors may originally have been "live" or active metaphors, where they are consciously understood as being metaphorical; others may be assumed to be "dead" or "conventional" in that they are just taken for granted and indistinguishable from, or absorbed into, the dictionary definition of the word. But in fact they are so alive for us that we are unaware of them, as we are unaware of our own breathing. They are interchangeable with the definition of the word itself, as the "leg" of a piano is;—which however, in Victorian times were given skirts, and tables long tablecloths that reached to the floor because of their supposedly 'dead' metaphorical association. Thus we must say that Max Black (1979) was mistaken to assert that dead metaphors are not metaphors at all; at the very least they are 'ghost metaphors' whose spirits still lurk in the back of our minds.

Perhaps the more meaningful, basic division is one based upon intention; intentional versus unintentional metaphor, although that might invoke post-modernist wrath. If I say, hey, hey, Max, *look* at the leg of *that* piano—then once again it is an active metaphor; but if I look at an illustrated dictionary, it is simply part of the unexciting definition. For our purposes, it matters not if these metaphors are living, dead, or ghost; or a case of catachresis or not; what counts is their power to influence our cognitive direction as a society. That is the true strength of a civilization's metaphors.

### 2.3 The Cognitive 'Kitchen' of the Mind

Next we look at how those ready-made ways of interpretation fuse with information from the real world in a phase of cognitive formulations. That is, in most instances, the cognitive inputs of experience and information undergo the process of being interpreted without a hitch, according to one's preconceived notions; but at times a clash between such notions and experience arises, or what is sometimes called cognitive dissonance, originally proposed by the social psychologist Leon Festinger (1957), and since refined over the years (Harmon-Jones and Mills 1999). Festinger's foresight, among other things, was to realize the intertwined nature of motivation, emotion, cognition, and behavior well before the more recent popularity in the brain sciences of touting the role of emotion in cognition and decision-making. And with the aid of conceptual blending theory, the manner in which cognitive dissonance transforms into consonance, appears more clearly visible.

These processes are ongoing and simultaneous; both conscious and unconscious; information accumulates which either reaffirms or contradicts present models of interpretation in the vast kitchen of the mind. A vast "cognitive kitchen" because unresolved issues take time to be transformed into something mentally palatable, while other information, from a wide variety of sources that does not conflict with our preconceived notions, acts as a continuing supply of reassuring nourishment for the mind, just as replaying the same tunes does for us, or hearing news which reinforces our confirmatory biases. That is, the mind is 'parallel-processing' or rather 'multiple-processing.' If we were to rephrase the above in the much older terminology of Kant, the problematic ingredients undergo "reflective judgment" while reassuring nourishment is digested by "determining judgment." Kant's ideas, as Mark Johnson (1987) perceptively observed, are not so dissimilar to contemporary ways of viewing the role of the imagination in mental processing.

Most theories of intellectual and scientific change assume that man's intellectual evolution progresses for the better whenever theory and data conflict. But unlike Hegel's idea of a grand new syntheses emerging from opposing social and intellectual currents in an unstoppable flow of Progress, or Thomas Kuhn's (1962) idea of old scientific paradigms becoming completely replaced by ones which better account for new information, or Karl Popper's (1959) Darwinian evolution of knowledge through a process of weak theory elimination (falsification) toward more interesting problems, in the process of cognitive construction we propose here, there is no necessary movement towards a resolution that is more in tune with reality.

### 2.4 From Moral Resolution to Cognitive Homeostasis

Rather, what happens is a cognitive exploration (not limited to searching for scientific explanations) that results in our psychological satisfaction, and resolves the troublesome *sense* of contradiction, though not necessarily the root cause of the contradiction. In other words, the primary mover of intellectual change in a society is the *feeling* of irresolution, or cognitive dissonance, rather the actual contradiction itself. Sometimes it may result in a general sense of intellectual malaise in a society, or may be more pronounced among its intellectual leaders. If that irresolution is primarily scientific, the cognitive dissonance may be resolved by the overthrow of an old theory which has become untenable in the face of new facts—as the geocentric theory of the solar system was overthrown by the heliocentric theory; but at other times, especially in the case of historical interpretations or ethical issues, where the facts and their significance are open to debate, it may instead lead to a revision in the way we regard the importance of those facts themselves.

An old cognitive model may be resurrected, or a new one may be synthesized from pre-existing ideas in a process analogous to "conceptual blending" (Fauconnier and Turner 2002). Conceptual schemas interact with problematic constructs, and it is this process which works as a forceful mechanism of resolving moral dissonance, rather than, as is commonly believed, by logical and self-conscious ethical



reasoning, or by a process of probabilistic Bayesian inference, incrementally conditioning past belief. The ethical homeostasis of a society is thus often achieved with the help of a mental 'jump' into cognitive comfort, rather than resolved by responsible acts of restitution. When there is no "cognitive policeman," so as to speak, who is in a position to chide us into remorse (perhaps because we ourselves have taken on the role of world policeman), we may, like a child who corrects his own school papers, do so in a way that suits how we would like to see ourselves.

### 3. Metaphorical Currency/Frequency

#### 3.1 'Conscience Saving' Metaphors

Our point of concern here is not only 'conceptual blending' per se, but its involvement as a mechanism by which moral issues are resolved by a society—resolved not on the basis of logical and ethical political decisions—but by the use of such cognitive blending/emotional transference devices. Instead of directly addressing the contradiction between image and reality by taking steps to bring image in line with reality, or vice versa, the definition of reality itself may be simply changed.

It is precisely in this aspect that scholarship extends, from its narrow and specialized basis, to play a significant role in the construction of a larger ethical framework, as well as act to channel the general moral direction of a society. For in order to succeed in what will be accepted as a legitimate leap of the ethical imagination, a cognitive synthesis—one that is capable of commanding respect—of what are very different mental constructs without intrinsic relation, may be necessary. And while those links might at first glance seem somewhat arbitrary, but they become over time the cognitive axis around which common sense revolves, and the basis for deeming whatever is unlike itself to be arbitrary instead.

That mental act of construction depends upon 1) the prestige and epistemological status of the 'conscience-saving metaphor' within a cultural tradition, such as the authority that Plato (and his concept of mankind seeing only the flickering shadows of a more awesome reality) or Aristotle (and his syllogistic approach) may confer upon a given ethical situation, and 2) how widespread the mental habit of applying such a metaphor actually is in a particular society. This may be called its *metaphorical currency*, or alternatively, its *metaphorical frequency*, measured by how extensive its current application is in scientific, social, and folk theories, and its propagation at institutions of higher education within that society.

#### 3.2 'Canonical' versus 'Quaint' Metaphors

Whether a metaphor is convincing or sounds quaint is a function of how academic leadership treats it. A quaint metaphor, like one which compares the universe to a clock or the body to an engine may have been born much later in human history than one which compares reality to shadows in a cave—yet the latter can possess a greater currency today because it has gone through the printing press of modern scholarship. A quaint metaphor on the other hand, acquires the noticeable patina of an antique, and comes to sound trite and ineffectual, despite the fact it may actually be younger and of no less intrinsic value.

The higher the degree of intellectual or political authority, and the more widely recognized that authority is, the more decisive is the stamp of approval, as any social psychology textbook tells us about the power of demagogues or white-gowned scientist look-alikes; and we assume it to be true, and that such authority partakes in our conceptual formulations and their entrenchment. Likewise, the denial of an epistemological tradition by highly regarded thinkers may become the crack which fissures into a socio-intellectual transformation of greater proportions.

### 3.3 Schema Extension, Metaphorical Memesis, and Emergence

While a single authoritative application of a metaphor may not be the only reason a certain way of thinking crystallizes in a society, it seems more logical than not to believe it is a contributory cause, either as provocation to the formulation of new ideas or as buttressing reinforcement to pre-existing thought. Superordinate metaphors and epistemological frames, should they be made fashionable and respectable by intellectual authority, are by their very nature prone to new applications or employed to reinforce old ideas. Indeed, the whole process of lexical evolution points to this mechanism. In terms of cognitive grammar, the relationship of such metaphorical applications functions as a sanctioning "prototype" lending itself to "extensions" and the reinforcement of the "schema" (Langacker 1993), and its eventual "entrenchment." Within the framework of the "usage based model" in linguistics, a philosophical metaphor may be considered a cognitive unit resembling an extended grammatical schema where applications contribute to determining low or high conceptual type frequencies and their general "productivity." (Bybee and Thompson 1997).

Along similar lines, but from yet a different, earlier perspective, Richard Dawkins (1976), taking from Greek drama "mime" which has come to mean mimic or imitate, proposed the term "meme" rhyming with "gene," to describe easily transferable non-material entities such as ideas, songs, dances, or any recognizably differentiated and self-contained cultural unit. He proposed that memes compete with other memes in a Darwinian struggle to propagate themselves at the expense of others, just as genes do. Thus he literally proposed that ideas have a life of their own; Terence Deacon (1997) proposed much the same with the idea of "language as a virus."

Another way therefore, of defining the strength of metaphors is their potential degree of mimesis; perhaps it is their highly "memetic" nature which charms us. Vivid, active, or effective metaphor may imply memetic susceptibility; which has always been implicitly understood in everyday language as the ability of something to "capture our imagination." Even in philosophy we see how better arguments can be defeated by more "contagious" ones. Thus John Searle is probably better known and more oft-quoted for his "Chinese Room," William Ockham for his "Razor," Thomas Nagel for his "Bat" and Ludwig Wittgenstein for his "Family Resemblances" than the rest of their theories combined. Though we need not take the biological analogy literally, metaphorical mimesis is not to be underestimated, nor the role of intellectual authority as "contagion source".

Of course, not everyone reads philosophy or linguistics, not directly, no more than they do the special theory of relativity; but nevertheless the average person does have a vague awareness of such things which become part of his worldview. And if not directly, in a process somewhat analogous to how in game theory an individual's "higher order beliefs," or beliefs about other people's beliefs, are linked to individual and group behavior, so too, a superordinate metaphor works its way indirectly as well as directly in creating the emergent, cognitive climate of what is called civilization.

## 4. I-Language and E-Language

As an example we take Chomsky's widely accepted conception of language: a division between "I-language" and "E-language." I-language is internal and innate to every individual, an idealized language system, universal and abstract in nature, and based in the biology of the brain. It is what we are capable of and what we instinctively understand is right—i.e., our "competence," although at times we might err. When we do err, we are in the world of E-language—external, extensional, expressed language—the vast, messy output of verbiage we hear all around us, often in ungrammatical and chaotic form: the "performance" of everyday language. However simplified, this in a nutshell, is Chomsky's manner of defining the reality of language. Next, keeping these epistemological divisions in mind, we need to look at how Chomsky (1986) has framed the pursuit of knowledge in terms of "Plato's Problem" versus "Orwell's Problem."

#### 4.1 Plato's Problem

Let us first look at "Plato's Problem." Plato's problem is the philosophical preoccupation with delving into why we are capable of knowing so much, of understanding the mysteries of the mind and universe, despite our bound and limited existence as human beings. It harks back to Plato's ancient idea of timeless, perfect invisible "Forms"; what we see around us are only degraded, imperfect examples of those ideal forms. However familiar these concepts may be to us, it is worthwhile reviewing them briefly. Plato used an allegory of men in a cave who face a wall and see the shadows of things, but not the things themselves in the light of the fire. For instance, take the idea of Circle—no matter what picture of a circle we may draw or find printed on paper, however round it looks at first glance, if we view it with a microscope we will never find a perfect circle. Nevertheless, we comprehend the ideal form of Circle, even if we have never seen one. According to Plato, we understand these concepts because somewhere inside us, though not always easy to discern, we already possess that knowledge. Plato's Forms are abstract knowledge, invisible and innate, ultimately accessible to human understanding, whose illumination is the responsibility of the philosopher. They are true knowledge, *more valuable than the knowledge of things we experience*, which are after all, mere shadows of the truth. The ancient philosopher, or his modern academic counterpart, sees clearly in his mind's eye what others only vaguely sense, if at all.

Now, if we take the example of language, Plato's Form of language would be somewhat analogous to Chomsky's idea of I-language; while the flickering shadows of reality are analogous to Chomsky's E-language of superabundant babbling. We might make some fine distinctions between Chomsky's and Plato's views, but it can be safely said Chomsky generally agrees with the spirit of Plato's idea. Indeed, Chomsky sees children's acquisition of language in the same light as Plato; without postulating foreknowledge, the child's quick acquisition of grammar is all but miraculous, and therefore must be innate and universal.

#### 4.2 Orwell's Problem

Orwell's Problem on the other hand, is the question of why, despite man's scientific and philosophical powers to glean insights into the nature of the cosmos and faraway galaxies (even young children can learn something as complex as a language), at the same time, we human beings understand so little about our own human society, and can be so easily deceived about its ugly realities—even when the facts are staring us in the face.

According to Chomsky, the dismal reality of institutional propaganda—as portrayed in George Orwell's novel 1984, grinds down our mental capacity to see clearly, and herds us into a 'manufactured' consensus of political opinions. "Manufactured" because, as in Orwell's nightmarish novel, totalitarian government achieves compliance by controlling every facet of a citizen's mental life—all information and media. Ideas are reformatted and broadcast in a brain-numbing, automated "Newspeak," not so dissimilar to the Machiavellian double talk today of modern politicians amplified via the mass media. Chomsky conceives of Orwell's problem as a result of deep, multiple linkages in corporate avarice and media distortion, government corruption and military adventurism, and so forth—concrete problems of money, power, and people. Like Plato believed, the real world is much less beautiful than the realm of ideas; and because these political problems exist at a mundane social level, their resolution is primarily the responsibility of the average citizen and politician, with the scientist working in an auxiliary role.

#### 4.3 Orwell's Problem as Plato's Problem

Thus Chomsky sees the problems of Plato and Orwell as existing in two separate departments of human knowledge. But underneath, they may be linked more strongly than he wishes to believe, for the

pursuit of Platonic vision is not simply impeded by institutional obstructions such as politics and bureaucracy as claimed by Chomsky. The reverse is also true: the institutional obstructions and the manipulation of mass opinion as outlined by Orwell hinges upon a Platonizing form of mental abstraction, where reality is divided into separate, compartmentalized domains that do not cross over into the other.

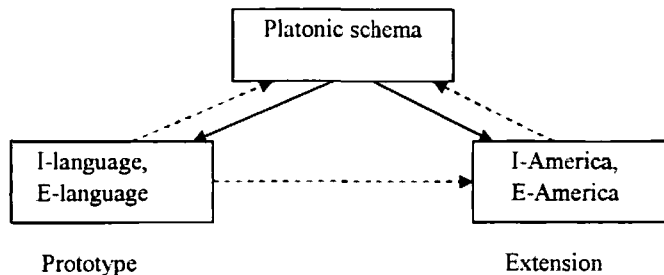
That is to say, mass opinion is herded by the sanctioning of epistemological schemas where concepts are defined to be separate from experience. The higher reality of “I” good consecrates the doctrine of lesser or “necessary evils”—which are a reality of only secondary “E” degree. Injustice, even when identified, falls on deaf ears because reconciliation between the two spheres of reality is unnecessary in this epistemological ordering. Thus Plato’s problem—the pursuit of scientific truth—is not simply impeded by Orwell’s problem; the resolution of Orwell’s problem—the clearing of obfuscation surrounding political reality—is also impeded by Plato’s approach, by the widespread habit of employing on a grand scale the conceptual metaphor of Plato’s Forms.

#### 4.4 I-America and E-America

Or in other words, if there exists an ‘I-Language’ versus an ‘E-Language,’ so there exists an ‘I-America’ versus an ‘E-America’ in the minds of many Americans. I-America is the internalized, idealized, and Platonic ideal of America; while E-America is the external, experienced, everyday, and excusable America. This conception of knowledge, where we can isolate and idealize things rather than accept the empirical truth as it is, and thus continue to believe in a world of Platonic perfection entirely different from what we observe and experience daily, is why the “manufacture of consent” which Chomsky rails at works so well—and cannot occur without it.

In terms of cognitive grammar, “I-Language/E-Language,” in a process similar to that of category extension, acts as the canonical “prototype” which activates the dormant Platonic “schema” sanctioning the acceptable “extension” of the I-America/E-America conceptualization:

Figure 2.



It is precisely because the average American holds the same attitude toward his country as Chomsky does toward language, that the political problems Chomsky rails at will never be resolved. Chomsky (1986) says “Plato’s problem is deep and intellectually exciting; Orwell’s problem, in contrast, seems to me much less so.” Likewise the average American says: ‘I-America’s problem is deep and intellectually exciting; E-America’s problem, in contrast, seems to me much less so.’ And it is natural that such a viewpoint seeks a higher reassurance and congruence with the larger totality of authoritative knowledge. That is to say, such an intellectual coup de force must be underpinned by a widely accepted epistemological approach, blessed by that society’s most respected intellectual leaders.

Thus Chomsky’s conscientious, but mentally compartmentalized social activism can never

overcome the apathy of the majority of people over the questionable activities of E-America. Perhaps more importantly, it is why educated leaders in the diplomatic and intelligence community, mostly educated at the best private universities in America, are willing to commit a thousand misdeeds as part of E-America for the sake of the one eternal principle of I-America, and why they are without remorse for all their misdeeds. I-America is their *raison d'être*, their pride as the intellectual elite capable of comprehending the Platonic form of America, and to administer on behalf of the ignorant E-populace. It is part of their intellectual culture, and they admire minds like Chomsky's, regardless of how they might disagree with his politics. It is no coincidence that with a metaphysical outlook as that of Plato's, whose conception of an ideal republic was one controlled by an oligarchy of elite philosophers capable of comprehending the ideal state, or "I-Republic," the guardians of "I-America" today would also see themselves as an elite oligarchy free of the normal legal restrictions which exist for those less enlightened citizens unable to see the importance of a higher mission. Ironical as it may seem, Chomsky's bifurcation of interests, and the grain of his scholarship, are not entirely at odds with the very Orwellian problem he criticizes. Maybe it is for that reason a strange sort of immunity works on behalf of Chomsky, where for other men, saying similar things, there often seems to be a much lesser tolerance.

#### 4.5 Schematizing Cognitive Civilization

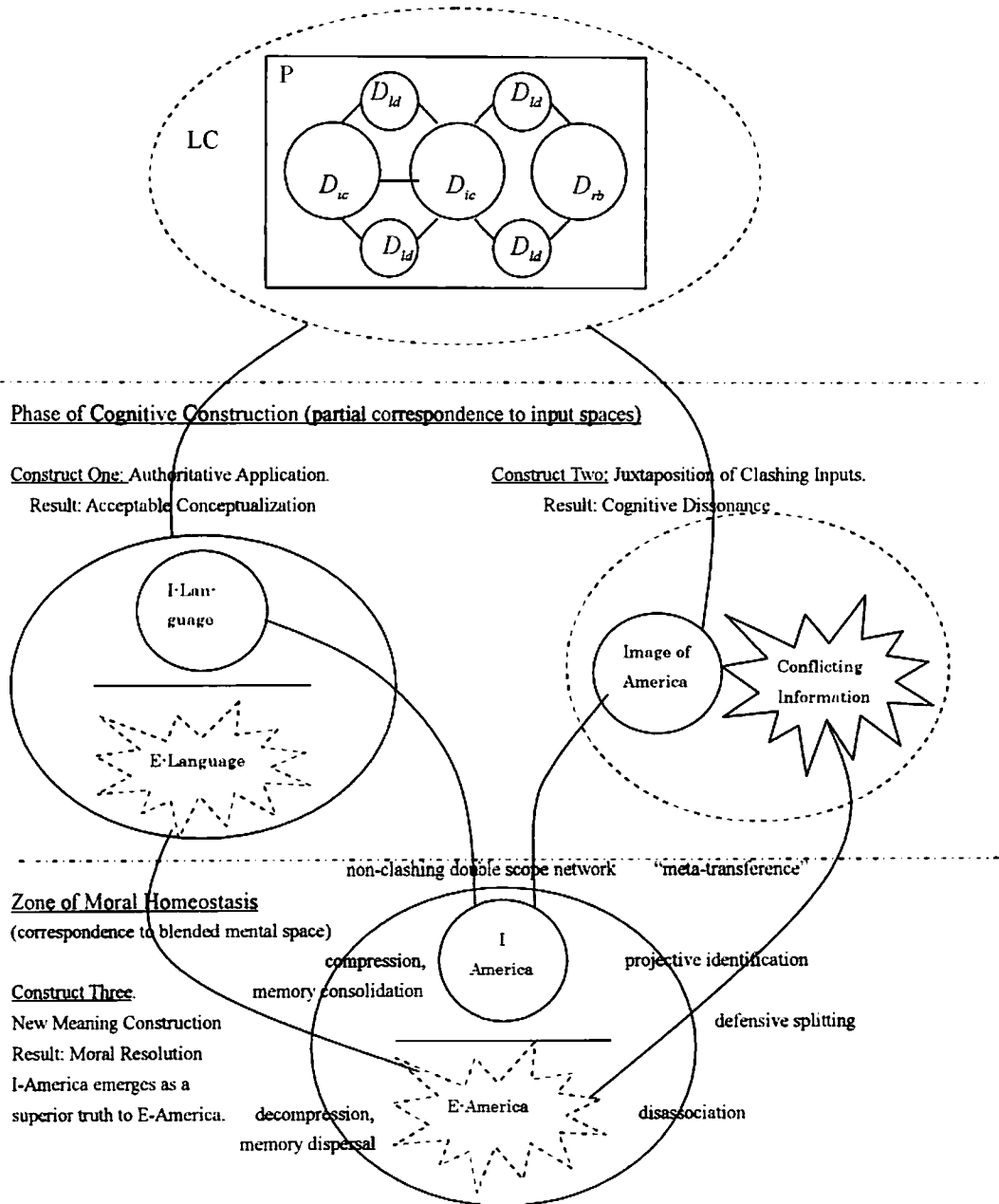
In Figure 3, we diagram the ideas discussed above, where intellectual and psychological satisfaction is achieved by the mapping of authoritative metaphors on to cognitive trouble spots by which ethical and cognitive irresolution is dissolved; the emotional source of dissonance is transferred to the new moral construct, without need for behavioral adjustment. In the example provided here, widely held preconceptions and cherished images of one's own country, fostered by education and stereotypes passed down from friends and family, clash with disturbing news, information, and everyday experience which contradicts those preconceived notions. That news may be about war, social conditions, or public policy that creates the need for a means of resolution, a solution whose validity is confirmed by its reassuringly widespread occurrence among the general population, or at least among an element of the population one identifies with, such as an elite cadre of officials or executives, if one happens to be by chance, a public official or business executive.

It is here where conceptual blending occurs via a suitable epistemology of interpreting the world, allowing an emotional disassociation from those aspects of oneself or those aspects of one's country or group that are causing cognitive dissonance. For perspective, we should note that this phenomenon has strong parallels to what in psychodynamics is called 1) projective identification or transference, 2) defensive splitting, and 3) disassociation (see Appendix B. for further discussion). In particular, we might mention the psychologist Heinz Kohut's (1971) version of defensive splitting where an exhibitionistic and expansive "grandiose self" is projected into an internalized object that acts to fuel ambition, separated from feelings of inadequacy. But in this case, the fantasy of the perfect self, rather than gradually being tamed by reality, comes to be crystallized in Platonic purity thanks to the superordinate metaphor. Painful elements associated with the self are relegated to what in this case is "E-America" and thus what would otherwise need to be suppressed can be accepted as a reality of a second order, while the self as "I-America" continues to shine undiminished.

But as the old saying goes, all that glitters is not gold; there is a dark side to what Fauconnier and Turner call identity "compression" and "decompression." We can tout how the compression of vital relations leads to "global insight, human-scale understanding, and new meaning" (2002:92), but the same processes can also lead to overweening insight, global-scale misunderstanding, and distorted meaning. In the case illustrated here, a "non-clashing double scope network"—a kind of blend where two separate but mutually enhancing conceptual referents create more than the sum of their parts—powerfully reinforces moral and political lapses of responsibility.

Figure 3. Emotionally Charged "Motivated Blending"

Linguistic and Cultural Matrix (partial correspondence to global generic, superordinate categories, etc.)



## 5. Metaphor, Memory, and Moral Sentiment

### 5.1 The Memory Encrustation of Metaphor

In the preceding example, memory may be embellished, distorted, and suppressed in a variety of ways (as outlined by Schacter and Scarry 2000). Those mechanisms include “confirmatory bias,” or the tendency to selectively focus upon certain pieces of information and not others to reinforce cherished notions; and at the other end of the spectrum, “change blindness,” or the inability to notice even fundamental changes in one’s environment; sometimes even the person one is speaking to can be switched without the test subject noticing (Simons and Levin 1998, Rensink 2002). It usually occurs at a higher rate of incidence among the older than younger, perhaps because systems of categorization have solidified to the point where they may dominate perceptions.

In certain types of conceptual blends, “compression” may encourage “confirmatory bias” towards certain events which are easily recalled and reinforced as long term memory; while “decompression” of features or information which are incongruous with the blend may be ignored, creating a situation conducive to “change blindness.” Recent studies do show that visual memory, for example, is enhanced by blocking out so-called “irrelevant” items (Vogel et. al. 2005). Thus the ease with which we remember things is linked to our ability not to remember other things—but in fact what we consider irrelevant information is simply a matter of the priorities our cognitive models provide. Studies of autobiographical memory (Conway and Pleydell-Pearce 2000, Woike et al. 1999) indicate much the same, that it is our conceptions of self-identity that shape our memories and animate our goals.

That is to say, metaphor as self-concept can shape the topology of memory because memory is mapped, or encoded on to the superordinate metaphor in what are sometimes referred to as memory organizing schemas, which figuratively speaking, act as a “rallying flag” around which memories are “regimented.” Certain memories are consolidated, cohesive, and easily recalled, and the associative network is strengthened by what is known as elaborative rehearsal and maintenance. In that sense, it is the superordinate metaphor that determines the activation of what is called in memory research the “consolidation switch” to long term memory. Other information passing directly through short term memory is “shallow encoded” and dispersed becoming only dimly recognizable if at all; and any logical connections there might be between those pieces of information are ignored.

Events that reinforce established conceptualizations of the self are experienced and then recalled in a deeply satisfying way, “as if one were there” in vivid sensory detail; while those that detract from it are viewed as if one were regarding the matter from afar (D’Argembeau et al. 2002). By this process, a conceptual abstraction may become more seemingly real by its association with vivid memories, while the real, by being remembered in a rather detached fashion, may become more seemingly abstract. Therefore, what counts is not simply if a metaphor is active or not, but how long it has been active to a particular individual, and what it represents. Over time, it becomes encrusted with additional sentiments, linked to a hundred experiences, triggering certain memories but not others, like the airline stickers on a suitcase that has experienced a hundred trips with its owner. Metaphors are not simply effective or less effective due to the nature of the metaphor itself, they are liked and disliked, fondly remembered or despised because of the interaction between the metaphor and personal experience once that metaphor has been internalized.

### 5.2 An Oddly Cut Gem: Social Emotions via Moral Refractions

From the point of view of memory, a superordinate metaphor may be somewhat like a nostalgic old suitcase, and at other times, like a flag around which memories are regimented. But regarded from the perspective of emotion, it may be better compared to a large, oddly cut gem, because a superordinate metaphor’s components, such as the I-America and E-America facets, refract emotions differently. Such

metaphors aid in structuring our emotions, and give those emotions a greater or lesser moral significance.

On one hand, the emotive-epistemic configuration of the superordinate metaphor may work to dampen certain emotional signals that would usually lead someone to interpret information as a problem requiring resolution. For instance, things we confront in life such as the suffering of others, or one's own unethical conduct (those events are sometimes called the emotional competent stimulus or ECS in social neuroscience), both which should bring about a moral response, fail to trigger 1) the appropriate degree of social emotion, such as compassion or guilt, and 2) the confrontation with moral decision-making they demand. And thus in turn, there is a failure to steer behavior in an ethical direction.

However, in other situations, the reverse occurs: the emotional signal is amplified by that metaphoric structure. Self-pride, for instance, when one makes some sort of philanthropic contribution to others, or contempt for other nations when they violate accepted norms, might be excessively stimulated, followed by an excessive behavioral response. Thus the specific composition of the superordinate metaphor exacerbates the lopsidedness of moral responses, skewing "emotional intelligence."

### 5.3 'Hot' and 'Cold' Metaphors

A vivid, if simple, example of this sort of metaphorical control over our emotions comes from what might at first seem an unrelated field of research: "gratification delay." Yet perhaps nothing better reveals the power of metaphor to control emotional response than what researchers call "hot" and "cold" cognition (Metcalf and Mischel 1999), a mental technique to boost the ability to delay gratification for food by imagining, for instance, pretzels as brown logs or marshmallows as puffy clouds—i.e., by metaphorical suggestion. Among a host of techniques of gratification delay, this was the most effective: cognitively morphing the desired into something inedible but which nevertheless shared some characteristics with the food's appearance, therefore inviting one to engage in active, symbolic reconstruction.

The implications of what we might call "hot and cold metaphors" extend beyond achieving delayed gratification; they reveal basic processes at work between cognition, motivation, behavior, moral restraint, and the power of metaphor to reshape them all. If cooling or heating metaphors are common within language, and reflect a standard approach to conceptualization, then hot and cold cognition in fact, provide further evidence of the ability of language to influence not only cognition, but the wellsprings of basic drives. But in one sense, this is hardly a new discovery; cold cognition is simply another way of defining what has been well understood for centuries in meditative practices such as the "koan" of Zen Buddhism. As for hot cognition, metaphors have been documented as a motivating mechanism in education (Petric and Oshlag 1979), to name but one example. Hot cognition can be cooled, but cool cognition can be stoked with metaphor into hot imagination.

Indeed, much of human emotional adjustment and decision making can be called a function of this two directional, or two-tap nature of conceptual displacement using metaphorical stimulation or tranquilization. They have functioned so in religion since time immemorial: from the prehistoric days of Earth as mother goddess, to later religions with heavenly sleep and hellish fire. And naturally, different combinations of hot and cold metaphors in conjunction with epistemological frameworks—i.e. superordinate metaphors such as Plato's allegory of the cave with its cool shadows of experience and fire lit truth—produce different emotional responses to the world.

### 5.4 Universal Ethics 'versus' Superordinate Metaphor

Self-serving metaphorical abstractions may pre-empt or even replace what the psychologist Lawrence Kohlberg once called the highest stage of moral development: ethical decisions made on the



basis of universal principles. For what Kohlberg failed to realize was that the conception of universality itself is modulated by the epistemological and metaphorical storehouse of the society one grows up in. In a fine rephrasing of Plato, Kohlberg stated confidently that, “youths who understand justice act more justly, and the man who understands justice helps create a moral climate” (Kohlberg 1968); but the point is such a man can only act more justly in accordance with his conception of what universality is, nurtured by a particular moral climate. Depending on the canonical metaphors of a society, what we might call the general level of an individual’s ‘intersubjective’ moral awareness, or his cognizance of a perspective which is neither only his nor only the other’s, but is sensitive to the existence of interactive effects upon entities of equal relevance—to simplify philosopher Martin Buber’s “I and Thou” (later reformulated by psychologist Martin Hoffman, 2000)—may be either increased or reduced. This is another way of saying that one of humanity’s most redeeming characteristics, a sense of conscience, might be heightened or dimmed by the cognitive characteristics of a society.

The superordinate metaphor functions as the moral counterpart of the “heuristic attribute” that Kahneman (2002) speaks of, with which we judge things (ranging from physical measurements to causal relationships) intuitively, and often mistakenly. In other words, the superordinate metaphor acts as a ‘moral heuristic.’ As the emotional yardstick with which moral judgments are made, when two things of equal ethical significance are placed within its framework, or occur at the same frequency, the moral heuristic makes one seem more serious or more frequently occurring than the other. At best, the superordinate metaphor works as an “availability” or “anchor” heuristic; at worst, it becomes a “contagion” heuristic condoning even atrocities in a schema of moral “accounting” lending credence to the idea that on the whole, or in the balance, one is always justified in one’s decisions and actions.

Thus deviations in justice do not occur simply under extreme circumstances such as the “fog of war” or because of “group think” or obedience to authority as demonstrated many years ago in controlled experiments by Stanley Milgram (1965) at Yale or in later experiments at Stanford, or recent analyses of prisoner torture in Iraq; they are also linked to foundational conceptions of reality, which given any set of circumstances, make certain things seem somewhat more or less permissible for an entire community.

### 5.5 Cognitive Grammar as a Theory of Human Nature

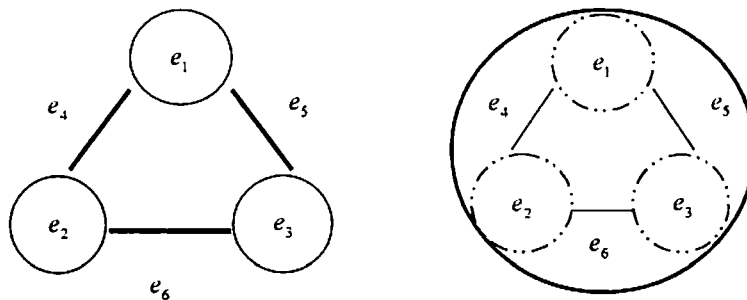
The idea that epistemological conceptions of reality shape one’s sense of appropriate moral conduct seems to be substantiated from psychological studies of “implicit theories” about human nature that people hold. Beliefs that human nature be conceived as a single, changeless entity (i.e., fundamentally fixed) or incrementally formed (i.e., malleable)—leads to divergent moral judgments and responses. In controlled studies, the manner in which subjects respond to negative behavior of others varies with the type of implicit theory they adhere to. Entity theorists tend towards global judgments of “evil” and calls for “punishment” while those who hold incremental moral schemas attempt to understand reasons, conduct process analyses, and recommend education or rehabilitation (Dweck 1996, Ross 1989). These implicit conceptualizations of human nature have been found not only to reflect moral views, but also personality characteristics and goal organization.

Interestingly, these differences in entity versus process interpretations of human nature have their analogies in semantic structure, between, for instance, “nominal” versus “relational” predications of implying the same objective situation, such as the words “group” versus “together”; “circle” versus “round”; or “explosion versus explode”; to use Ronald Langacker’s (2002) examples. In casual terms, they might be called a difference in emphasizing the “nouniness” versus the “verbiness” of something—although not quite. More accurately, as Langacker (2002) points out, nominal predications presuppose the interconnections among a set of entities; highlighting, or “profiling” the region thus established. Relational predication, on the other hand, presupposes a set of entities, and profiles the interconnections among the entities.

In the case of “group” (nominalizing) versus “together” (relational) to describe a number of people in the same place, nominal predication may be said to implicitly assume an idea of togetherness as sameness, compared to a relational approach. As Figure 4 illustrates, to refer to “a group of three people” versus “three people together” is to say the same thing in terms of referential content or functional equivalence, but are different approaches to conceptualization, just as it is to refer to people in nominal terms of “evil” versus in terms of an action chain. To label members of a society “a bad group” or “people doing something wrong together” represent different moral sensibilities. In the former, there is a tendency towards “bounding” or creating boundaries in an “ethics of summary scanning” of sorts; in the later a focus on their interactions as separate individuals, in an “ethics of sequential scanning.” Cognitive linguistics can thus offer intriguing moral-cognitive hypotheses, and testing needs to be conducted whether people with “entity” implicit theories versus those with “process” implicit theories of human nature exhibit finer linguistic correspondences as well. But rather than simply test the difference between the two extremes of “entity” versus “process,” it may also be interesting to probe a wider range of possibilities such as “entity” versus “thing” conceptualizations of other human beings, or “complex atemporal relations” versus “process” views of morality, for instance.

Figure 4.

Conceptual Predication and the Perceived Contours of Moral Responsibility



Relational predication: “together”

Nominal predication: “group”

$e_1, e_2, e_3$  : cognitive events which constitute the conception of three participating individuals

$e_4, e_5, e_6$  : cognitive events which constitute the conception of operations responsible  
for establishing interconnections between each pair of participating individuals

Based on Langacker (2002)

## 6. Body Politic as an Expression of Cognitive Civilization

Morality may thus be conceptualized in different ways; and so too can nations, which are obviously “imagined communities” (Anderson 1983) to their participants, who can only come to know but a small fraction of their fellow citizens, and fathom only a modicum of the myriad aspects of what constitutes a “nation.” But more importantly, imagined communities are not being imagined in the same way everywhere, in a kind of globalization of manufactured nationhoods, as outlined in Anderson’s well-known treatise.

Nor are all nations spinning out “invented traditions” (Hobsbawm and Ranger 1983) with the same speed; some countries actually do experience a rapid decline in *authentic* traditions. Indeed, the very opposite of what was diagrammed earlier may be said to be going on in certain nations, where they see their cultural self as E-reality without an I-counterpart, or are herded along into accepting the I-America, E-America dichotomy, subsumed into it as peripheral, satellite identities in a downward spiral of lowered self-esteem and selective, negative memory (see Tafarodi, Marshall, and Milne 2003).

According to the belief-disconfirmation paradigm (Harmon-Jones and Mills 1999) of the theory of cognitive dissonance, the attempt to cognitively subsume others into one’s worldview is precisely what happens when a group feels their beliefs contradicted by information: they reinforce each other’s beliefs and proceed to engage in substantial proselytizing to persuade others of those views—to “win hearts and minds”—and thereby reaffirm their self-conceptualizations, eliminating global embarrassment and the cognitive source of the finger pointing at them. If the group is small, like a political cabal, as in the case of the attempted “Bay of Pigs” invasion of Cuba during the Kennedy administration, it may end up in critical self-reevaluation; if the group is much larger, it may simply lead to ever increasing efforts at global persuasion.

Thus our beliefs and our assessments of the moral nature of war and peace, or of self and nation, are not primarily dictated by self-regulating systems of logic-based appraisal. Metaphor stumps our logic. Transfixed by it, our ability to see information for what it is wanes. Bayesian inference, for instance, is not so much inaccurate, as not allowed to receive its signals to operate, for we can rationally choose only from what we emotionally can see. Or in other words, evidence and information that pertains to a belief is not necessarily the main force of belief change: it is pre-empted by superordinate metaphor which may cloud the significance of data so that we become morally “data blind” or at least ethically near-sighted to the extreme.

In decision-making by nations, epistemology and metaphor become part of the mix of 1) reasoning strategy, 2) imagery of future outcomes and goals, and 3) emotional characterization of prior experiences in comparable situations—the three key elements (as Damasio suggests) that produce what is considered to be a rational, collective decision. The cognitive package of I-America and E-America, for instance, may work to re-elect certain presidents and prolong a course of action, such as war in the face of what would otherwise be self-evident, contradictory chains of reasoning about the facts and motives for initiating that action.

## 7. Morals as Metonymy

It should be obvious that the specific terms “I-America” and “E-America” do not exist any more than the terms “I-Language” and “E-Language” exist for the majority of the population. Both pairs of concepts are commonly known by their metonyms, or abbreviated form: simply “America” for both “I” and “E” America; and “Language” for both “I” and “E” Language. Nevertheless, these metaphysical differences do exist as a reality in the minds of their advocates, a reality confirmed by seeing the reflection of that belief in the image of the other, and in the larger schema of academic knowledge, political speechwriting, and assumptions made in the mass media—whose contradictions can hardly be

handled sanely otherwise. In terms of cognitive grammar, we may say that I-America is the “active zone” of what might be called a broader range of possible conceptions of America.

Because “I-America” and “E-America” appear the same in everyday language, that allows for homonymic manipulation by politicians or scholars playing on the confusion of same sounding words that mean quite different things. What unites them in their efforts is an epistemological framework that allows information which detracts from the preferred ideal to be automatically categorized as of lesser significance—“shallow encoded”—compared to that which enhances it. The former are by rule the exception, the latter the norm. These verbal ellipses exacerbate “change blindness” towards the fundamental nature of society, even when it shifts noticeably away from its own declared principles. In other words, while “conscious polysemy,” or openly recognized multiple meanings in one word, is not an issue in achieving accurate communication, on the other hand, unconscious, or manipulative polysemy, is a serious socio-political problem.

Madeleine Albright, one time Secretary of State, echoing her President, Bill Clinton (both steeped in the Platonic university tradition), may be called exemplary of this attitude, and in the use of homonymic manipulation. Prefacing her comments in an interview with the standard assertion that everything possible was being done to avoid military conflict, she concluded:

“But if we have to use force,  
it is because we are America.  
We are the indispensable nation.”(Albright, NBC 1998)

Or ‘restored’:

“But if we have to use force as E-America,  
it is because we are I-America.  
We are the indispensable I-nation.”

Force in other words, is excusable because I-America is the ultimate benchmark for which force exists to be used. But without the concept of dualistic reality, the phrase is truly a meaningless solipsism. The sentence works as a convincing public statement because there is an implicit and widely understood “indexicality” which revolves around an impregnable abstraction. Likewise when President George W. Bush said in response to the national tragedy of 9/11:

“Like most Americans,  
I just can’t believe it  
because I know how good we are.”(in Buchanan 2002)

What he actually means is probably:

“Like most Americans (who believe in I-America over E-America),  
I just can’t believe it (what happened in E-America)  
because I know how good we (as I-America) are.”

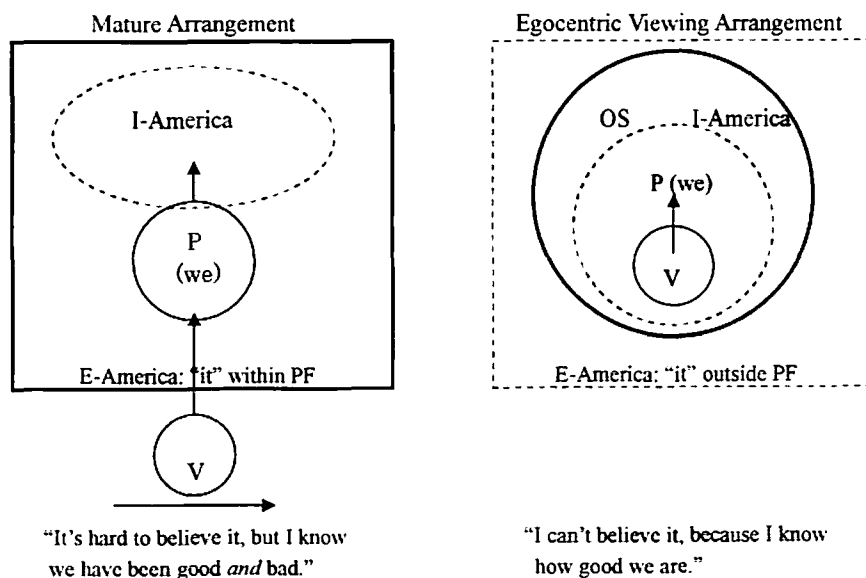
That is to say, in spite of the possibility that what happened to E-America may have been the “blowback” of what E-America was previously doing in other countries, the average American can nod his head in whole-hearted agreement to the President’s claim; it rings completely true because each time he hears or thinks of “America” he reinterprets the meaning to one that satisfies his conscience. That process is no less natural to him than placing what pleases on his personal website, and all that displeases in the trashcan icon—only this time in the computer of his mind. Thus pragmatically speaking, in the sense of

the word as employed in linguistics, works a “deixis” of monumental moral convenience.

The president’s phrase makes presumptions that sound very unnatural in the grammar of certain languages, and hardly conceivable as a public statement in most languages. From the perspective of cognitive grammar, the phrase shows an extreme degree of “subjectification.” In other words, there is an enfolding or collapsing of entities, and their properties, into the subject’s perspective so that conscious awareness of distinctions between them and himself are lost. He, the viewer, is part of the perceived “we” and both are within the onstage region of automatic good, or I-America. E-America, of course, is also part of the true perceptual field; but is outside the president’s ken; he can’t believe “it” because cognitively he cannot see it (this was precisely his initial reaction upon first hearing the bad news); or rather he leaves it outside of his perceptual focus thanks to the device of homonymic metonymy.

His statement of goodness is atemporal, nominalized, and definitional; it refers not any idea of virtue as something that is to be developed, or based upon doing good in the past or striven for in the future; one simply “is” good—deterministically transcending past and future by definition of being American—in a platonic, “stative relation” sense rather than a process. The following diagram (figure 5) depicts this situation modeled after Langacker (2002), with a possible alternative included side by side. V is the viewer (“I”), P the perceived object (“we”), OS the onstage area (“I-America”) and PF the perceptual field (E-America, or “it”). The heavy and dotted lines indicate differences in perceptual emphasis.

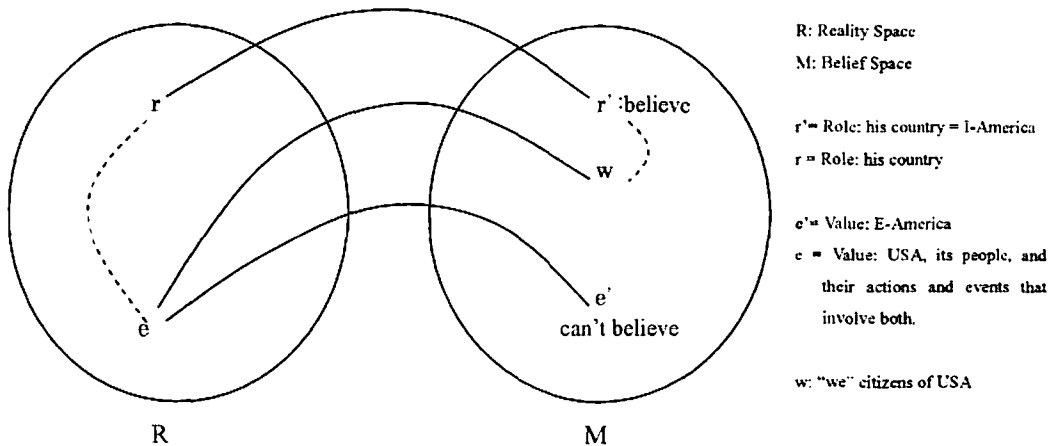
Figure 5.



Alternatively, in terms of mental space theory, this sort of homonymic metonymy or “split coreference,” to use Fauconnier’s term, fosters maximal “referential opacity” and is confounded with a high degree of “reflexivity.” In the following diagram (Figure 6), I-America is the “mental image connector” for the role of his country and countrymen in multiple levels of role and value opacity. The individual value referred to by “it” and what may have caused it does not fill the role of “his country” in

Bush's belief space, although "it" may have in reality space. That is to say, Bush's reading of the situation is true according to the understanding that there are two separate realities and a valid split co-referentiality.

Figure 6.



The above may be easier to understand with the following analogy. I-America and E-America are to Bush, as "Londres" and "London" are to Pierre, a story which Saul Kripke describes, and Fauconnier (1994) discusses. Pierre, growing up in France, hears good things about the city of Londres, and believes: "Londres est jolie." Later in life he moves to England living in the city of London, speaking English and thus within his realm of experience knows that city by the name "London," which he uses in his daily life living there. He comes to believe that "London is ugly" while still somehow keeping his belief that "Londres est jolie." Since they are distinct in his mind, his beliefs are not, in his own mind, contradictory. Likewise, it seems Bush believes that what is done by or happens to America (E-America), if something negative, is hardly believable; but *America* (I-America) is always believable, good, and jolie. The similarity between Pierre and George is simply masked by the fact that unlike Londres and London, both I-America and E-America carry the same name. Nevertheless, in much the same way, for George Bush there are Americans, and then there are *les Américains*. This, by the way, may shed some light on Kripke's puzzle.

#### 8. I-American, E-American

Next, let us take an example from Samuel Huntington of Harvard University, one of the best-read political philosophers in America today, well-known for his "Clash of Civilizations" theory, who says:

"There is only the American dream  
created by an Anglo-Protestant society.  
Mexican-Americans will share in that dream  
and in that society only if they dream in English." (2004: 256)

What he probably means is that:

“There is only the American dream (of I-America)  
created by an Anglo-Protestant (I-American) society.  
Mexican-Americans (E-Americans) will share in that dream (of I America)  
and in that society only if they dream in English (the I-language).”

In other words, they must leave behind E-America and enter the Platonic realm of I-America, cognitively transmogrified into I-Americans down to the very depths of their dream state. According to Huntington, despite all the ethnic intermingling in the U.S.A., and no matter how much more of it is to come, “Anglo-Protestant Culture” will always be the “Cultural Core” and the superordinate metaphor of America, symbolized by the English language. Huntington quotes a fellow academic who asserts that America is distinguished by “the ability and willingness of an *Anglo elite to stamp its image* on other peoples coming to this country” (2004:59-61)—i.e., superimposing or cross-space mapping English-speaking, Anglo-Protestantism upon the mental space of Spanish-speaking, Mexican-Catholicism. What we have here, according to conceptual blending, is a single scope network, but a powerful one, which brings about a socially acceptable transformation of the E-Mexican to I-American, where E-values are now re-equilibrated by Anglo-Protestant I-sensibilities.

It is no wonder such psychological eviscerations and de-individuating pressures lead to destructive escapism and other forms of low self-awareness (see for instance Diener 1979) that have characterized minority groups in the past or indigenous peoples after colonization. Huntington intends no harm; he simply does not realize how what he honestly believes is for the good of all is a part of an unhealthy cognitive process. Huntington’s words are only the tip of a large iceberg of similar, widely expressed metaphorical conceptualizations about Mexican-Americans in the U.S. press (Santa Ana 2003). Conquest occurs no longer by race, but through language; conversion occurs no longer by religion, but through values; and cognitive dissonance is resolved by mapping future vision onto problematic present, which then becomes a working model for forming public opinion and policy (Figure 7 schematizes this conceptualization of Huntington’s de-individuated I-American).

## 9. I-Human, E-Human

### 9.1 Content Displacement of Container Metaphor

As pointed out by Lakoff and Johnson (1987), as well as by the psychologist Wilfred Bion (1967) somewhat earlier, the schema of person as container seems to be a basic part of the human metaphorical repertory. Nevertheless, the particular epistemological assumptions and metaphorical norms of a society may more or less encourage the development of a “content displacing” mentality, or that of its opposite, empathy. For instance, on an everyday level, the constant use of four letter words implying people, objects, and even life itself is just “full of sh - -” —i.e., waste matter, is in no way helpful in taming these content-displacing tendencies. Or consider the interaction of the platonic schema with the container metaphor for example, which may at times produce an unsavory cognitive combination.

The proclivity to see other human beings, especially from foreign cultures, as human in shape, but in essence animal-like and primitive, often single-mindedly fanatical, and otherwise composed of uniform matter—whether solid waste, gas, or liquid—may be an example of this phenomenon. As Pulitzer Prize winning New York Times foreign affairs columnist and author of the long-running bestseller The Earth is Flat, Thomas Friedman (2005), says: “Lebanon, Syria, Iraq, Saudi Arabia’ are “not real countries” but simply “tribes with flags.” “They are all civil wars waiting to happen” and intervening in those countries, such as Iraq, is like:

shaking a bottle of Champagne and then uncorking it.”

They are simply "E-matter" not even worthy as instantiations of a higher "I"-reality, as if unable to be contained in any sort of meaningful, logical Form. Likewise, one of America's most renowned cultural anthropologists, Clifford Geertz, in his acclaimed *The Interpretation of Cultures*, casts judgment as if assuredly from higher ground, concluding that in Indonesia:

"Things do not merely seem jumbled—they are jumbled,  
and it will take more than theory to unjumble them." (2000: 228)

That is, Indonesia by nature, cannot be defined; it has neither recourse to higher reason, nor solution in any higher theoretical Ideal. It is jumbled "E-matter" without any teleological purpose.

If lucky, however, such countries or people might become (if we search for clues in Geertz's writings) like his own illustrious forbearers—"self-taught Madisons or Jeffersons" (2000:340). Implicitly it seems, real countries and real people, or in other words, "I-nations" and "I-humans," are modeled upon an idea of America as the pinnacle of Western civilization—despite his well-known avowals to the contrary; the "E-human," it appears, is he who is striving to be a self-taught I-American. The non-American who is not striving to be so is simply E-matter with no "I" correspondence; his nation represents no Platonic ideal, and therefore is intrinsically "jumbled" like particles swirling in a shaken bottle of Champagne.

Thus according to Geertz, many non-western countries seem to be in essence indefinable, hardly real: Nigeria is the "least well-defined of the generally ill defined states" with an "up in the air quality" (2000:305); Lebanon is characterized by "extremely primordial diversity" (2000:297). At best, these countries correspond to a lower evolutionary stage—indeed they seem barely to have graduated from the primordial soup once heated by volcanic activity. Thus we have seething "Burmese primordial dissidence" (2000:289) and the "primordial discontent of the Arakanese and the Mons," (2000:288), in Morocco the outlying tribes have difficulty reining in their 'anarchic impulses,' (2000:297); while at least ancient Bali had evolved to "animal barbarism" (2000:333) and India is "waddling" (2000:289) as if a baby; Turkey has even reached the stage of an "adolescent" nation (2000:229).

Psychological research indicates that such cognitive tendencies towards "perceptual reduction" seem to be particularly strong when there is a motive to do so; when one is in conflict or potential conflict of interests with the perceived entity (Wicklund and Steins 1996). That may involve political or economic motive, but at times may be simply a matter of protecting one's self-image by deflating others via a process of "egocentric contrasting." (Beauregard and Dunning 1998). That deflation is sometimes conceived of literally, as when calling an enemy a "paper tiger," where a metaphorical collapse occurs from three into two dimensions—the enemy is deprived of the container-metaphor itself to become "containerless"; and a variation of this is "hollowing out," or becoming an *empty* container as is often applied to industrious, Asian peoples perceived as soulless "robots." A similar cognitive process seems to be at work in the metaphorical transformation of an enemy into "pure" or "sheer" or "unadulterated" evil—as if a wicked substance. And this cognitive habit is no trivial matter: it has been observed that such stereotypic images are a better predictor of U.S. foreign policy than objective economic and geopolitical circumstances (Cottam 1994).

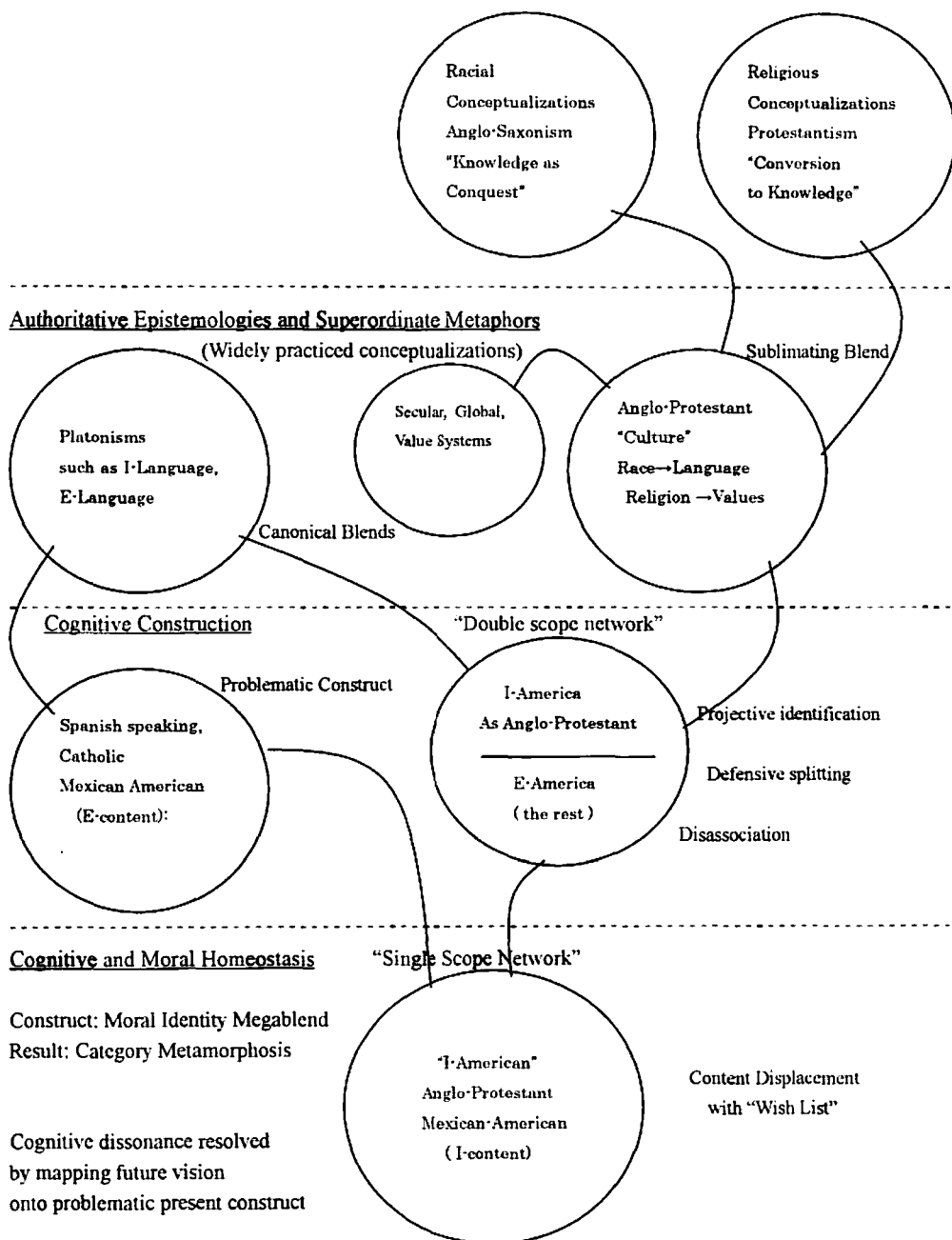
The proclivity to perceive others as comprised of matter different from oneself, or on the opposite end, having become suddenly similar to oneself, via conversion to one's own religion or one's language, in an act of self-replication, identity assimilation or substitution, may also be an expression of a cognitive tendency towards content displacement. Unfortunately, it may be said that a conscious attempt at replacing the mental content of other nations is a key pillar in the foreign relations policy of some nations, and leads to a noticeably unempathetic mode of international discourse.



Figure 7. Sublimation as Conceptual Blending

Submergence: Implicit or Crypto-Metaphors

(Socially and intellectually unacceptable conceptualizations)



## 9.2 Analogical Inference and Aristotle's Syllogistic Mantle

The Platonic schema is, however important, but one instance of how philosophical systems merge with metaphors and linguistic constructions to shape our views and responses to the world. Other conceptual schemas may also tend to make it easier to feel that some deserve justice more than others, and that there is a simple way to determine that—as found in the writings of the philosopher laureate of the Clinton era, John Rawls. His seemingly comprehensive Aristotelian approach in *The Law of Peoples* (1999), with a five fold categorization of humanity, is a good example of the power of epistemological culture and methodology to overwhelm the unruly cries of reality.

Rawls's apparently reasonable idea of "justice as fairness," to be meted out by "reasonable, liberal peoples" in "well-ordered democratic societies" contrasted to "outlaw" and "burdened" states, merges marvelously with the aforementioned concept of the "indispensable nation." The liberal, reasonable nation is indispensable in determining who are the outlaw states that deserve punishment, who are the burdened states in which economic intervention is required, and who are what Rawls calls the tolerated "Kazanistans" of the world, those decent but socially backward nations to be left alone.

Circular reasoning revolves among superordinate categories: 1) "liberal peoples" are 2) "reasonable" and therefore 3) "justice" follows (1999:25); which is not much different than saying reasonable people are reasonable and therefore they act reasonably—i.e., definitions derived deductively almost like algebraic tokens in an solipsistic equation. At best, we might call it a form of inferential reasoning that Aristotle called "apagoge," a kind of logical extrapolation hardened into conviction by the reasonableness of intermediating links along the way, or what Charles Sanders Peirce (1940) would later rename "abduction"—but stretched to the extreme.

In an act of moral wand-waving, Rawls conveniently defines away self-serving intentions in the actions of liberal, constitutional democracies (1999:47) against other states, even if such motives are an inseparable part of organized human nature. As there is license for unilateral economic intervention, so too there is license for military intervention. "Just war" can be waged justly only by just, well-ordered peoples, where membership to that club of justice is determined by those just, well-ordered people—whose governments nevertheless conduct "grave wrongs," which however, are excused by the need for "supreme emergency exemption." Grave wrongs by others make them outlaw states; grave wrongs by the "indispensable nation" are simply "failures of statesmanship." Furthermore, the low degree of concreteness and specificity of parameters means Rawls's model can be manipulated to fit almost any situation, so that if ever the U.S. and "Kazanistan" clash, the model's control inevitably goes to the strong. Perhaps unconsciously, that is the point of his mental exercise; for there certainly is no section titled "Unjust War" as there is for "Just War."

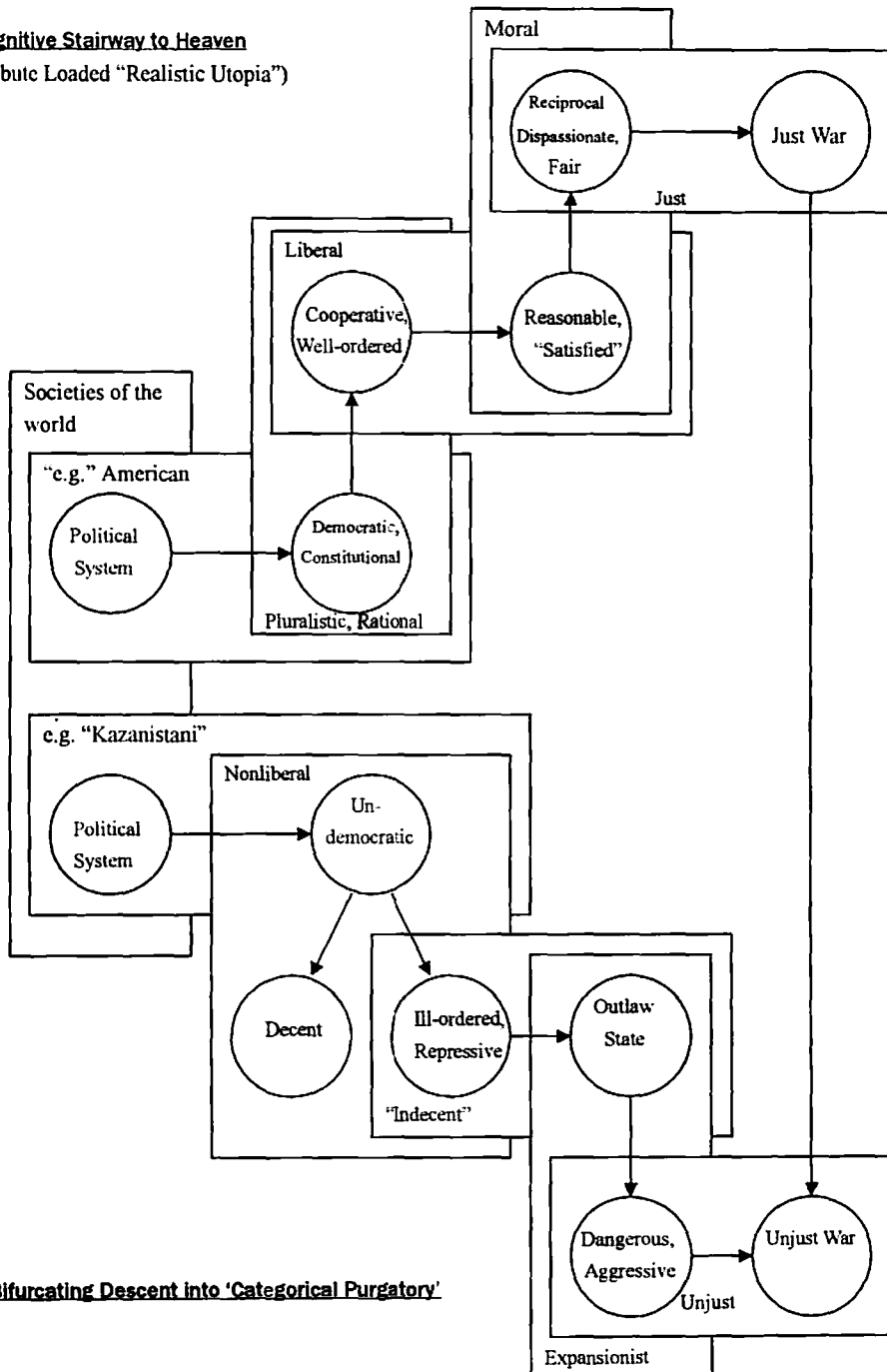
As studies of analogical reasoning (Markham and Gentner 2005, Perrott, et. al 2004) show, the characteristics of an idealized category like those above—such as "liberal peoples"—would become associated with the target analog, whether or not the target actually has those qualifications. The target space 'absorbs' the qualities of the source domain and the mind naturally makes the implied inferences. In other words, once the U.S. can reasonably be called a "reasonable, liberal democracy," then its people are also "cooperative," "moral," "just," and "well-ordered," which in turn means they wage "just war" by definition, in a syllogistic version of "Ready, Aim, Fire."

Analogies are "primed," so as to speak, to move forward through a sequence of overlapping categories or "cognitive platforms" which act much like launching pads for *modus ponens* logic. This category and rule system is what some cognitive scientists call a "weak method of reasoning" (Newell and Simon 1972), and the attempt to disguise in generic terms the all too obvious candidate for the "well-ordered, liberal democratic society" is rather disingenuous. Figure 8 depicts this classic example of motivated reasoning, where our choices are pruned by what we might also call a "categorical determinism" or "categorical fiat" guiding us along a cognitive conveyor belt on the path to just war.

Figure 8. Categorical Fiat, Abductive Pyramiding, and Analogical Priming

**A Cognitive Stairway to Heaven**

(Attribute Loaded "Realistic Utopia")

**The Bifurcating Descent into 'Categorical Purgatory'**

There is something amiss with defining which people are decent in some sort of honorary perpetuity according to distilled Aristotelian essence or rarified Platonic principle. Every nation is simultaneously both decent and indecent, or decent at times but inevitably indecent at other times—regardless of its political system. Meaningful justice must have an element of open-ended empathy that does not predetermine the focal point of compassion; fair judgment is based on the facts of the matter at hand, not by a presumptuous pre-placing of nations in a fixed hierarchy of ethical categories. —That is the very antithesis of jurisprudence—no less so than a court of law prejudging the outcome of a case based solely on the curriculum vitae of the plaintiff and defendant. And in that sense, it may be argued Rawls's *The Law of Peoples* is but one example of scholarship during the Clinton years, among others, including Huntington's *The Clash of Civilizations*, for instance, that set the intellectual stage for the military initiatives of the following presidency.

In the final analysis, all of Rawls's definitions of peoples and international relations simply follow an idealized version of the American led status quo in the era he was writing, an epoch of what may be called 'centrifugal globalization'—otherwise obliquely referred to by Rawls as "Realistic Utopia." It is a classic example of reformulating specific purpose into general abstraction for the sake of furthering that specific purpose. His blending of self-made definitions, moral ought-to-bes, and claims to realism about hypothetical situations is a nightmare of hocus-pocus—modus ponens, custom-made for political manipulation. If it were not for the aura of legitimacy that Rawls's Aristotelian mantle provides, we would all see that he is a philosophical emperor with no clothes. Although of course, he would disagree with this portrayal, which nevertheless is fair, if we were to follow his own style (in Rawls 1971:13), according to a conception of fairness as justice, which naturally is to be taken no more literally than if we were to speak of metaphor as poetry.

## 10. The Semantics of Submergence

Building upon the idea that the mind has a vast storehouse of imaginative devices, it is not hard to conceive that some of them are stored away in the back, out of sight. Perhaps of considerable personal value to the owner of that mental storehouse, on a day-to-day basis, he may hardly be conscious of them. Besides epistemologies and metaphors that are socially acceptable and widely employed, there are also metaphors, though historically significant and widely shared, that are no longer considered publicly acceptable means of conceptualization, such as schemas of race, conquest, and religious conversion.

### 10.1 From Implicit Metaphor to Sublimating Blends

Sublimation, like so much else from psychoanalysis, has been discredited in psychology (Baumeister et al. 1998, Kubie 1962); and therefore, no one should object to a lexical orphan being adopted here to henceforth refer to a particular kind of conceptual blending where conscious and unconscious conceptual elements are integrated into socially acceptable form that might otherwise be lacking in public authority.

As originally conceived, sublimation meant the channeling of sexual drives into other activity such as artistic production, but as hinted above, it need not be restricted to sexual motive and artistic expression; other examples might be what were originally racial or religious attitudes transformed into acceptable social or scientific abstractions. The psychological origins of those ideas, on the conscious level, are left behind such that one feels having long since "graduated" from such instincts. Such is the frame of mind of leading political scientists such as Michael Ignatieff, who claim that *Blood and Belonging* (1993) are the omnipresent obsessions of alien cultures around the world, but not his own.

And while it is true that ostensibly, in public, race is irrelevant in the United States, studies of implicit bias (Banaji, et al. 2003, Payne 2001, Eberhardt et. al 2004, Amodio et al. 2004) show that underneath it is very much alive; and furthermore, the activation and influence of such stereotypes is

typically unconscious, automatic, and decisive (Bargh et. al. 1996, Kawakami and Dovidio 2001, Greenwald, Oakes, and Hoffman 2003). Indeed, neuro-imaging studies, and those measuring event-related brain potentials, reveal just how sensitive people are to racial differences (Golby 2001, Phelps and Thomas 2003, Richeson et al. 2003, Ito, Thompson, and Cacioppo 2004), and how even policemen and average test subjects are quicker to shoot at black faces (Correll et al. 2002) than white ones. They are also very sensitive to linguistic differences that are tied to racial identity (Lippi-Green 1997).

In short, race is still one of the primary means of identification among Americans, and at the same time, regardless of nationality, emotion is always paramount when it comes to the core aspects of identity (Kitayama and Markus 1994, Beaugregard and Dunning 1998, Fein et al. 2003). To say everyone is conscious of race as a key element in their conception of self and others, but that they perceive racial differences with a quiet emotional translucency, contradicts everything we know about self-identity; and is no more credible than people watching the Olympics who are extremely conscious of their nationality claiming that they perceive national differences with a quiet emotional translucency.

Race is but one example of a variety of unspoken yet powerful conceptualizations which need to be accounted for in cognitive civilization. Philosophers and historians of science have spoken of the "religious unconscious" (Fuller 2004) or the "cultural meaning" (Jacob 1997) of scientific arguments, where the content of religion has been removed, but the religious framework of thought continues to influence conceptualizations beneath grand scientific debates. In general, studies show that religion figures particularly prominently in American society compared to other developed nations (Inglehart and Carballo 1997). That is to say, religious modes of thinking are a vital part of the accepted socio-cultural milieu. Sublimation has traditionally been characterized as a constructive mechanism, of which it often is, but it can also become the cover for the continued influence of factors in scholarship or politics whose existence becomes obscured.

## 10.2 The Self as a Project of Broad Knowledge Construction

To summarize by naming just a few researchers from English sources alone, the ever-increasing discoveries concerning: 1) the "cognitive unconscious" (Kihlstrom, Bargh, Wegner) with its "nonconscious goals" (Gollwitzer), "implicit biases" (Banaji), and "implicit theories" (Dweck, Ross); where 2) the self works to shape "autobiographical memory" (Conway) and is also shaped by "motivated memory" (Singer) involving "directed forgetting" (Myers and Brewin) and memory inhibition by "executive control" (Baddeley, Anderson)—not only regarding the self, but collectively, in a society's reconstruction of its historical past (Schacter)—compounded by 3) "motivated reasoning" (Kunda), "self-serving information processing" (Hippel), and the imperative of defending "self-esteem" (Baumeister) through "self enhancement" (Sedikides), which at times entails the deception of others (DePaulo, Paulhus) and even of the self (Dunning, Hirstein) modulated by 4) "superordinate goal hierarchies" (Carver and Scheier) and "possible selves" (Markus)—all the above, within a widening panorama of research ranging from subliminal perception to overarching life strategies—point to the importance of often unconscious or unfulfilled psychological preoccupations and the *self-concept as an ongoing project of broad knowledge construction*.

That is to say, our sense of self evolves from the interaction between the unconscious and our entire epistemological base with which we understand the world. These discoveries need to be accounted for in any theory of mind that strives to reflect psychological realities or be in the very least way comprehensive. And thus we arrive at "sublimation," recast as a form of *cumulative, implicit conceptual blending*, giving these various theories a much needed coherence by encapsulating the general bridging mechanism between unconscious process and conscious cognitive endeavor.

### 11. Concluding Comments

The changes in how we think as a society, how we view right and wrong, and how we interpret the world around us that becomes the basis for historical change—i.e., the grand flow of intellectual history—is normally conceived along the lines of scientific progress, despite the onslaught of postmodernist thinking in the late 20<sup>th</sup> century. Whatever mistakes we might make along the way, we are we hope, overall, advancing in the complexity and wisdom with which we understand the world and ourselves. Leaps in technology and startling discoveries, added to our ever-growing accumulation of knowledge guided by disinterested scholars, push us further along the path of intellectual maturity in a process largely separate from daily and world events—or so it seems. But the key mechanisms in cognition, viewed from the synthesized perspective of mental space theory, cognitive grammar, and social neuroscience—not to mention social psychology, cross-cultural studies, and critical discourse analysis—hold no guarantees that man will use them for the better; rather, he will use them to make himself feel better, which is not the same thing.

Shiny, emerging structures of knowledge may become transformed or co-opted in ways which lead us down dark paths; and worthy ideas submerge when they clash dissonantly with the world situation as we would like to see it. Cognitive cohesion is sought after at all costs; from the time in fact, we are small children trying out our cognitive-grammatical apparatus; and the first step towards a better world is for us to realize that less popular ways of viewing the world, compared to the most popular ways, are not less popular because they are less likely to be valid, only less cohesive with the way things already are.

Although human cognition is based in the biology of the brain, perhaps the saving grace is that these epistemologies and superordinate metaphors, and the canonical authority they claim, are painstakingly constructed, culturally mediated, and time bound; they are not absolutes—universal, timeless, and inevitable—as their proponents would insistently have us believe; and simply awakening to that fact is a big step forward towards moral restitution.

## Appendix

### A. Psychodynamics, Cognition, and Language

While portions of psychoanalytic theory have not been borne out by recent evidence, nevertheless, like all disciplines, there are always elements that have stood the test of time that are useful. So great, however, had been the aversion to psychoanalysis at the turn of the 21<sup>st</sup> century in Anglo-American intellectual circles, that even psychology itself had all but disassociated itself from it, picking up from the wreckage elements renamed and repacked into more scientific sounding labels. But now that the shortcomings of psychoanalysis have been made blushing clear to us, and its idols have been toppled, we should be able to better utilize what remains in a balanced fashion.

For whatever the exact topology of the unconscious—whether it should be considered in one, two, or three parts—it is no less real than once uncharted lands of which we had only knowledge of the coastline delta and the birds from the interior that fly overhead. Suffice that there is a psychological interior, and we must acknowledge it. Indeed, some researchers claim that the illusion is not the unconscious, but that of conscious will (Wegner 2002); and a large body of research is growing which indicates unconscious influences work powerfully upon thought and language in ways more complex and sophisticated than even Freud imagined; some call it the “New Unconscious” (Hassin, Uleman, Bargh 2005).

Likewise, however we might speculate about the nature of self-identity, the fact that we do defend, expand, or define our sense of self is undeniable, no less than we can deny a sense of self to a playful child floundering under the covers of a bed, hidden from our sight. Autobiographical memory and self-narrative, pragmatic supposition and lexical connotation, are all tied to our sense of self. Motive, emotion, and unconscious elements of cognition are within the realm of scientific and common experience. They demand explanation, and we should salvage what is useful in helping us make sense out of the linguistic habitat that surrounds us.

Psychoanalysis, of course, is keenly aware of cognitive disorders arising from emotional turmoil, while cognitive science and linguistics keeps its distance from them, emphasizing the triumphs of the normally functioning human mind. There seems to be an implicit understanding that cognitive ‘science’ is to skirt anything beyond straightforward ‘emotions’—explicit expressions of emotion—lest it be mired in a bog of irrationality. However the opposite is true; by connecting the rich clinical database of case studies and the conceptual depth of psychoanalysis to the mechanics of cognitive science, a better “categorical metamorphosis”—to employ Fauconnier and Turner’s term (2002:269) may emerge. Some, as Eric Kandel, famous for his work on the neurophysiology of memory, advocate a neuroscientific approach to psychoanalysis, in a new “biology of the mind” (Kandel 2005) as Freud originally conceived of doing, but gave up on. Others, in an approach that gained in popularity towards the end of the 20<sup>th</sup> century, applied cognitive science to the study of the unconscious or to psychiatry, as a method of individual psychotherapy (Hilgard 1977, Erdelyi 1985, Shervrin 1996, Stein 1997, Bucci 1997, Horowitz 1998, Clark and Beck 1999), each with their own clinical focus, conceptual twist, and terminology of psychodynamics.

The idea that linguistic and psychodynamic mechanisms may be similar has been suggested by Jacques Lacan (1968, 1977) who interpreted the unconscious like a language, viewing Freud’s idea of “displacement” as a form of metonymy; and “condensation” as the unconscious mind’s use of metaphor. George Lakoff (1997) has also pointed out that Freud’s idea of symbolization is similar to conceptual metaphor, and “reversal” is analogous to the concept of “irony.” Even Ray Jackendoff (1988), has discussed common points that may underlie psychodynamic conceptual structures and linguistic processes. In particular, he points out a widespread phenomena of “erroneous displacement followed by

regularization" referring to, for instance, slips of the tongue that follow consistent but unconsciously adhered to patterns, and postulates parallel patterns in disturbances of unconscious and emotional reactions.

But here we suggest somewhat the reverse: apply psychodynamic principles to cognitive linguistics itself, such as conceptual blending theory and cognitive grammar, to glean insight into complex cognition and how we, as part of a society's wider intellectual arena, form concepts which become the basis of moral decision-making and political action.

## B. Emotionally Charged Blending

Conceptual blending alone, where a person is presented with a stimulating juxtaposition of concepts through a combination of visual or linguistic signals prompted from the outside, such as the phrase "skiing waiter" (Fauconnier and Turner 2002:21), that trigger amalgamating associations, cannot account for the totality of the phenomenon we are confronting. Nor does motivated transference, where a emotional neediness from within that takes on emotionally charged life of its own, and searches for a projective outlet, suffice as an explanation. More is needed than conceptual blending or cognitive dissonance alone to gain a full sense of why and how satisfying ethical meaning is created. The focus of attention in the two fields is different, and both are necessary for a satisfactory explication.

In Fauconnian style cross-space-mapping, mental spaces, figuratively speaking, are all pervaded by the same emotional climate; like pockets of void with elaborate geometric coordinates and interstices, they have no color, warmth, nor weight. They are much like mathematical spaces of the topological kind. That is to say, mental space and blending theory emphasizes configurations and interactions *between* those spaces: their base, viewpoint, focus, access, match, web, opacity, grammaticality, and so forth. Psychoanalysis, on the other hand, probes the motivation that makes certain spaces more potent in our imagination than others. Cognitive linguistics has done much to show how the lines and switches are laid; and psychoanalysis has something to offer in explaining why the current flows in the direction it does.

"Meta-transference" which combines them, is charged blending, or emotionally electrified cross mapping. To put it in another way, the theory of mental spaces does not account for the motivational force churning the conceptual blend; and psychological transference does not account for the specific, structural face upon which emotions are projected. It is only by considering the parallel processing of the two, with our eyes also on the larger epistemological framework, that we glean how a transfixing construction of potent meaning occurs, and how that new construction, in that particular form, was chosen as the object of moral projection.

### B.1 Projective Identification and Conceptual Compression

When conceptual blends are emotionally charged, a common cognitive mechanism underlies the process of "cross space mapping" and what Freud and Jung called "projection," where critical elements of identity, personality, and emotion are vested into another person or object, sometimes accompanied by behavioral symptoms of infatuation or obsession, as in the particular case of projection called "transference." But in conceptual or meta-transference emotional elements are rearranged into, or transferred onto, new and abstract moral conceptualizations, rather than on to a particular person or object as is often the case in psychoanalysis. Projective identification is somewhat paralleled by Fauconnier and Turner's (2002) idea of identity integration by "compression" or "selective projection"—where particular aspects of concepts are highlighted at the expense of other characteristics, to form what they call a conceptual blend.



In light of everyday linguistic phenomena, these concepts of compression and projective identification are similar to the process of metonymic identification, such as when a symbolic part of something comes to represent a whole, or a larger concept. The phenomenon of childhood phonological “coalescence,” where phonemes from different syllables are compressed into a single syllable may be worth mentioning for added perspective.

## B.2 Defensive Splitting/Disassociation and Conceptual Disintegration/Decompression

In defensive splitting, a person distinguishes as two or more separate entities the desirable and undesirable aspects within himself or of what he experiences as a mechanism to reduce his anxiety and suffering. The idea of splitting has its analogy in what Fauconnier and Turner (2002) call “disintegration,” (the counterpart to integration), where certain attributes of inputs in a conceptual blend are held off to allow the blend to “gel” properly, that is to function as a concept.

While Freud emphasized the fundamental human drive as primarily “pleasure seeking,” the Object Relations School sees it as primarily “object seeking,” and emphasizes the overriding importance of internalized objects. Thus instead of mental “spaces,” the dynamic structure of mental “objects” are emphasized. And while we may dispute Klein (1975) or Fairbairn’s (1952) attribution of the causes of splitting, there is no doubt we do internalize people and objects, which come to carry on a vivid mental existence and whose emotional responses they evoke play a role in our understanding of the matrix of background information that are crucial in establishing how we think. Our own fathers, mothers, siblings, friends and foes for instance, undoubtedly shape our global, generic comprehension of concepts such as father, mother, sibling, friend and foe.

Along with the defensive splitting of the desired from the undesired parts of oneself, is the denial or jettisoning of, or disassociation from, those undesirable but nevertheless integral parts of a person or his experience that are a source of discomfort or displeasure. Disassociation is paralleled by what in conceptual blending theory is called “decompression,” the mechanism of disintegrating or distancing certain conceptual elements of input spaces in order to arrive at a better functioning blend. However, unlike denial or disassociation in psychoanalysis, which presupposes a strong emotional motivation, in the case of “decompression” the mind chooses “neutrally” among conceptual attributes in order to create a feasible blend, discarding some characteristics as non-fitting cognitive items like faulty parts or a student who tosses out redundant information placed in verbal math problems in a school textbook.

Linguistically speaking, the ideas of splitting/disassociation, disintegration/decompression, as well as mental blocking and suppression, all find a commonplace analogy in the normally functioning mind’s ability to automatically keep polysemic meanings of a homonym separate in our consciousness, or left in unconsciousness—to turn off, so as to speak, inappropriate or undesired meanings. Controlled studies of “hypermnnesia” (Erdelyi 1984), or the recovery of consciously inaccessible memory, also points to an intriguing aspect of this switching and separating cognitive mechanism.

## C. Neurolinguistic Indications

The principle of underlying correlation applies to proven emotional-cognitive links from the days of Stanley Schachter (1962) to more recent formulations in brain science popularized by Damasio (1994) and LeDoux (1996). As for the links between general cognition and linguistics, while any review of the recent neuro-linguistic literature shows noticeable differences in the brain’s processing of nouns and verbs (Shapiro et al. 2005, Federmeier et al. 2000, Pulvermüller, Lutzenberger, and Preissl 1999, Damasio and Tranel 1993), at the same time, whether measuring event related potentials (ERPs) or comparing neuro-images (PET, MRI), a great degree of functional overlap seems to exist between

language, motor, and visual systems (Démonet, Thierry, and Cardebat 2005, Blank et al. 2002, Kellenbach et al. 2002, Friederici 2001, Tyler et al. 2001) with neural activity ranging over a variety of brain regions, especially when it comes to processing abstract, metaphorical, or emotion laden phrases (Schmidt, Debusse, and Seger 2005, Cato et al. 2004, Craik et al. 1999).

Simply hearing action verbs activates motor representations and working memory structures necessary to actually perform those behaviors (Pulvermüller et al. 2005, Tettamanti et al. 2005); verbal control of action has been investigated (Baddeley, et al. 2001); and observation of action activates the same brain area as does retrieval of action verbs from memory (Jeannerod 1999), indicating the interrelated nature of motor function and verbal meaning of that function (Grèzes and Decety 2001). Thus it is becoming clear that there are automatic, nonconscious connections between verbal and behavioral representations in the brain. These correspondences are likely tied to the work of so-called “mirror neurons” found in the brain, but an in-depth analysis of that topic is beyond the scope of this discussion (See for instance, Arbib 2004 for an overview). Suffice it to say that how we *linguistically interpret* things stimulates the same areas as how we *physically do* things, an idea with interesting ethical implications.

Some researchers conclude “there is no single neural marker of word class” and word class based dissociations are “likely to be a function of both the type of stimulus and the context in which it occurs” (Federmeier et al. 2000). That is to say, grammatical categories seem to be intrinsically linked to basic sensory and motor functions in a synthesis of syntax and semantics, tied to fundamental mechanisms of cognition in a striking display of non-modularity. While there are recognizable differences of activity pattern between grammatical categories (and of course certain parts of the brain are more involved in language processing than others), at the same time, those brain patterns reveal a wide regional distribution into areas that overlap with both higher cortical and lower sensory-motor function. Neuroscience, in other words, seems to be indicating the validity of the cognitive-linguistic approach.

## References and Citations

- Albright, Madeleine. February 19, 1998, NBC-TV, file transcript on-line [www.fas.org/news/iraq/](http://www.fas.org/news/iraq/) posted by USIA. (Clinton also used the phrase "indispensable nation" in his second inaugural address: "America stands alone as the world's indispensable nation.")
- Amodio, David M., Harmon-Jones, Eddie, Devine, Patricia G., Curtin, John J., Hartley, Sigan L., and Covert, Alison E. (2004). "Neural signals for the detection of unintentional race bias." *Psychological Science*, 15, 88-93.
- Anderson, Benedict (1983) *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.
- Anderson, Micheal C. and Green, Collin (2001) Suppressing unwanted memories by executive control." *Nature* 410, 366-369.
- Anggoro, Florencia and Gentner, Dedre (2004) "Cross-Linguistic Semantic Differences Influence Recognition of Pictures." *Proceedings of the Twenty-Sixth Annual Conference of the Cognitive Science Society*, Chicago, IL.
- Arbib, Michael A. (2004) "How Far Is language beyond Our Grasp? A Response to Hurford" In Oller, D. Kimbrough and Griebel, Ulrike eds. *Evolution of Communication Systems: A Comparative Approach*. 315-321. Cambridge, MA: MIT Press.
- Baddeley, Alan D., Chincotta, Dino, and Adlam, Anna (2001) "Working memory and the control of action: Evidence from task switching." *Journal of Experimental Psychology: General*, 130, 641-657.
- Banaji, Mahzarin R., Bazerman, Max H., and Chugh, Dolly (2003) "How (Un)ethical Are You?" *Harvard Business Review*, December, 57-64.
- Banaji, Mahzarin R., and Bhaskar, R. (2000) "Implicit stereotypes and memory: The bounded rationality of social beliefs." In Schacter, D.L. and Scarry, E. eds. *Memory, brain and belief*. 139-175. Cambridge, MA: Harvard University Press.
- Bargh John A., Chen, Mark, and Burrows, Lara (1996) "Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action." *Journal of Personality and Social Psychology*, 71, 230-244.
- Bargh, John A., Gollwitzer, P.M., Lee-Chai, A., Barndollar, K., and Trötschel, R. (2001) "The automated will: Nonconscious activation and pursuit of behavioral goals." *Journal of Personality and Social Psychology*, 81, 1014-1027.
- Barnes, J. ed. (1984) *The Complete Works of Aristotle*. Bolingen series LXXI. Princeton, NJ: Princeton University Press.
- Bartlett, Frederick C. (1932) *Remembering: A Study in Experimental and Social Psychology*. Reprint, 1995, Cambridge, UK: Cambridge University Press.
- Baumeister, Roy F. (1996) "Self-Regulation and Ego Threat: Motivated Cognition, Self-Deception, and Destructive Goal Setting." In Gollwitzer, P. M. and Bargh, J. A. *The Psychology of Action: Linking Cognition and Motivation to Behavior*. Chap. 2, 27-47.
- Baumeister, Roy F. (1997) "Esteem threat, self-regulatory breakdown, and emotional distress as factors in self-defeating behavior." *Review of General Psychology*, 1, 145-174.
- Baumeister, Roy F., Dale, Karen, and Sommer, Kristen L. (1998) "Freudian Defense Mechanisms and Empirical Findings in Modern Social Psychology: Reaction Formation, Projection, Displacement, Undoing, Isolation, Sublimation, and Denial." *Journal of Personality*, 66, 6, 1081-1124.
- Beauregard, Keith S. and Dunning, David (1998) "Turning up the contrast: Self-enhancement motives prompt egocentric contrast effects in social judgments." *Journal of Personality and Social Psychology*, 74, 3, 606-621.
- Bion, Wilfred (1967) *Second Thoughts*. New York: Jason Aronson.
- Black, Max (1979) "More about metaphor." In Ortony, A. ed. (1993) *Metaphor and Thought, Second Edition*. Cambridge UK: Cambridge University Press.
- Blank, S. Catrin, Scott, Sophie K., Murphy, Kevin, Warburton, Elizabeth, and Wise, Richard J. S. (2002) "Speech production: Wernicke, Broca, and beyond." *Brain*, 125, 8, 1829-1838.

- Bower, Gordon, ed. (1984) *The psychology of learning and motivation: Advances in research and theory*. New York: Academic Press.
- Bowerman, Melissa and Levinson, Steven C., eds. (2001) *Language acquisition and conceptual development*. Cambridge, UK: Cambridge University Press.
- Bucci, Wilma (1997) *Psychoanalysis & Cognitive Science: A Multiple Code Theory*. New York: Guilford Press.
- Buchanan, Patrick (2002) *A Republic, Not an Empire: Reclaiming America's Destiny*. Washington, D.C.: Regnery Publishing.
- Burgess, Paul W., and Shallice, Tim (1996) "Confabulation and the control of recollection." *Memory*, 4, 359-411.
- Bybee, Joan L. and Thompson, Sandra A. (1997) "Three frequency effects in syntax." In Juge, Matthew L. and Moxley, Jeri O. eds. *Proceedings of the 23<sup>rd</sup> Annual Meeting of the Berkeley Linguistics Society*. 378-388. Berkeley, CA: Berkeley Linguistics Society.
- Campbell, W. Keith, Reeder, Glenn D., Sedikides, Constantine, and Eliot, Andrew J. (2000) "Narcissism and Comparative Self-Enhancement Strategies." *Journal of Research in Personality*, 34, 329-347.
- Carver, Charles S. and Scheier, Michael F. (1998) *On the Self-Regulation of Behavior*. Cambridge, UK: Cambridge University Press.
- Cato, M.Allison, Crosson B., Gokcay, D., Soltysik, D., Wierenga, C., Gopinath, K., Himes, N., Belanger, H., Bauer, R. M. Fischler, I. S., Gonzalez-Rothi, L., Briggs, R. W. (2004) "Processing words with emotional connotation: an fMRI study of time course and laterality in rostral frontal and retrosplenial cortices." *Journal of Cognitive Neuroscience*, 16, 2, 167-177.
- Chomsky, Noam (1986) *Knowledge of Language: Its Nature, Origin, and Use*. Westport, CT: Praeger.
- Chomsky, Noam (1988) *Language and Politics*. Edinburgh, UK: AK Press.
- Chomsky, Noam and Herman, Edward S. (1988) *Manufacturing Consent: The Political Economy of the Mass Media*. New York: Pantheon Books.
- Clark, David A. and Beck, Aaron T., with Alford, Brad A. (1999) *Scientific Foundations of Cognitive Theory and Therapy of Depression*. New York: John Wiley and Sons.
- Conway, Martin A. and Pleydell-Pearce, Christopher W. (2000) "The Construction of Autobiographical Memories in the Self-Memory System." *Psychological Review*, Vol. 107, No. 2, 261-288.
- Correll, Joshua, Park, Bernadette, Judd, Charles M., and Wittenbrink, Bernd (2002) "The police officer's dilemma: Using ethnicity to disambiguate potentially threatening individuals." *Journal of Personality and Social Psychology*, 83, 1314-1329.
- Cottam, Martha (1994) *Images and Intervention: U.S. Policies in Latin America*. Pittsburgh, PA: University of Pittsburgh Press.
- Craik, Fergus I. M., Moroz, Tara M., Moscovitch, Morris, Stuss, Donald T., Winocur, Gordon, Tulving, Endel, Kapur, Shitij (1999) "In search of the self: A positron emission tomography study." *Psychological Science*, 10, 1, 26-34.
- Damasio, Antonio (1994) *Descartes' Error: Emotion, Reason, and the Human Brain*. New York: G.P. Putnam's Sons
- Damasio, Antonio (1999) *The Feeling of What Happens: Body and Emotion in the Making of Consciousness*. San Diego: Harcourt, Inc.
- Damasio, Antonio R. and Tranel, Daniel (1993) "Nouns and Verbs are Retrieved with Differently Distributed Neural Systems." *Proceedings of the National Academy of Sciences*, 90, 4957-4960.
- Dawkins, Richard (1976) *The Selfish Gene*. Oxford, UK: Oxford University Press.
- Day, Samuel B., and Gentner, Dedre (2003) "Analogical inference in automatic interpretation." *Proceedings of the Twenty-fifth Annual Meeting of the Cognitive Science Society*.
- DePaulo, Bella M. and Kashy, Deborah A. (1998) "Everyday lies in close and casual relationships." *Journal of Personality and Social Psychology*, 74, 63-79.
- DePaulo, Bella M., Kashy, Deborah A., Kirendol, Susan E., Wyer, Melissa M., and Epstein, Jennifer A. (1996) "Lying in everyday life." *Journal of Personality and Social Psychology*, 70, 979-995.

- Deacon, Terrence W. (1997) *The Symbolic Species: The Co-evolution of Language and the Brain*. New York: W.W. Norton.
- Diener, Ed (1979) "Deindividuation, self-awareness, and disinhibition." *Journal of Personality and Social Psychology*, 37, 1160-1171.
- Driven, René, Frank, Roslyn, Pütz, Martin eds. (2003) *Cognitive Models in Language and Thought: Ideology, Metaphors and Meanings*. Berlin: Mouton de Gruyter.
- Dunning, David (2005) *Self insight: roadblocks and detours on the path to knowing thyself*. New York: Psychology Press.
- Dweck, Carol S. (1996) "Implicit Theories as Organizers of Goals and Behavior." In Gollwitzer, P. M. and Bargh, J. A. eds. *The Psychology of Action: Linking Cognition and Motivation to Behavior*. 69-90.
- Démonet, Jean-François, Thierry, Guillaume, and Cardebat, Dominique (2005) "Renewal of the Neurophysiology of Language: Functional Neuroimaging." *Physiological Reviews*, 85, 1, 49-95.
- D'Argembeau, Arnaud, Comblain, Christine, and Van der Linden, Martial (2002) "Phenomenal characteristics of autobiographical memories for positive, negative, and neutral events." *Applied Cognitive Psychology*, 17, 3, 281-294.
- Eberhardt, J.L., Goff, P.A., Purdie, V.J., and Davis, P.C. (2004) "Seeing black: Race, crime, and visual processing." *Journal of Personality and Social Psychology*, 87, 876-893.
- Enfield, Nick J. (2002) *Ethnosyntax: Explorations in Grammar & Culture*. Oxford: Oxford University Press.
- Erdelyi, Matthew H. (1984) "The recovery of unconscious (inaccessible) memories: Laboratory studies of hypermnesia." In *The psychology of learning and motivation: Advances in research and theory*. Bower, G., ed. New York: Academic Press.
- Erdelyi, Matthew H. (1985) *Psychoanalysis: Freud's Cognitive Psychology*. New York: WH Freeman.
- Everett, Daniel L. (2005) "Cultural Constraints on Grammar and Cognition in Piraha: Another Look at the Design Features of Human Language." *Current Anthropology*, 46, 4, 89-130.
- Fairbairn, W. Ronald D. (1952) *Psychoanalytic Studies of the Personality: The object relation theory of personality*. London: Routledge and Kegan Paul.
- Fauconnier, Giles (1994) *Mental Spaces*. Cambridge, UK: Cambridge University Press.
- Fauconnier, Giles (1997) *Mapping in thought and language*. Cambridge, UK: Cambridge University Press.
- Fauconnier, Giles and Turner, Mark (2002) *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books.
- Federmcier, Kara D., Segal, Jessica B., Lombrozo, Tania, Kutas, Marta. (2000) "Brain responses to nouns, verbs and class-ambiguous words in context." *Brain*, 123, 12, 2552-2566.
- Fein, Steven, Hoshino-Browne, E., Davies, P. G., and Spencer, S. J. (2003) "The role of self-image maintenance in stereotype activation and application." In Spencer, S.J., Fein, S., Zanna, M. P., and Olson, J. M. eds. *Motivated social perception: The Ontario Symposium Vol. 9*, 21-44.
- Festinger, Leon (1957) *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.
- Fillmore, Charles (1982) "Frame Semantics" In Linguistic Society of Korea, ed., *Linguistics in the Morning Calm*. Seoul: Hanshin.
- Friederici, Angela D. (2001) "Syntactic, prosodic, and semantic processes in the brain: evidence from event-related neuroimaging." *Journal of Psycholinguistic Research*, 30, 3, 237-250.
- Fuller, Steve (2004) *Kuhn vs. Popper: The Struggle for the Soul of Science*. New York: Columbia University Press.
- Geertz, Clifford (2000) *The Interpretation of Cultures: Selected Essays. 2000 Edition* Reprint of 1973 New York: Basic Books.
- Gentner, Dedre (2003) "Analogical Reasoning, Psychology of." In *Encyclopedia of Cognitive Science Vol. 1*. 106-112. London: Nature Publishing Group.
- Gentner, Dedre and Goldin-Meadow, S. eds. (2003) *Language in Mind: Advance in the study of language and thought*. Cambridge, MA: MIT Press.

- Glaser, Jack and Kihlstrom, John F. (2005) "Compensatory Automaticity: Unconscious Volition is Not an Oxymoron." In Hassin, Ran R., Uleman, J.S., and Bargh, John A. eds. *The New Unconscious*. Oxford, UK: Oxford University Press.
- Golby, Alexandra J., Gabrieli, J.D., Chiao, J.Y., and Eberhardt, J.L. (2001) "Differential responses in the fusiform region to same-race and other-race faces." *Nature Neuroscience* 4, 845-850.
- Goleman, Daniel (1985) *Vital Lies, Simple Truths: The Psychology of Self Deception*. New York: Simon and Schuster.
- Gollwitzer, Peter M. and Bargh, John A. eds. (1996) *The Psychology of Action: Linking Cognition and Motivation to Behavior*. New York: Guilford Press.
- Grady, Joseph (2005) "Primary metaphors as inputs to conceptual integration." *Journal of Pragmatics*, 37, 10, 1595-1614.
- Greenwald, Anthony G., Oakes, M.A., and Hoffman, H.G. (2003) "Targets of discrimination: Effects of race on responses to weapons holders." *Journal of Experimental Psychology*, 41, 399-405.
- Greve, Werner and Wentura, Dirk (2003) "Immunizing the Self: Self-Concept Stabilization Through Reality-Adaptive Self-Definitions." *Personality and Social Psychology Bulletin*, 29, 1, 39-50.
- Grèzes, Julie and Decety, Jean. (2001) "Functional anatomy of execution, mental simulation, observation, and verb generation of actions: A meta-analysis." *Human Brain Mapping*, 12, 1-19.
- Gumperz, John J. and Levinson, Stephen C. eds. (1996) *Rethinking linguistic relativity*. Cambridge, UK: Cambridge University Press.
- Hamilton, Edith and Cairns, Huntington, trans. (1961) *The Collected Dialogues of Plato Including the Letters*. Princeton, NJ: Princeton University Press.
- Harmon-Jones, Eddie and Mills, Judson eds. (1999) *Cognitive dissonance: progress on a pivotal theory in social psychology*. Washington, D.C.: American Psychological Association.
- Hassin, Ran R., Uleman, James S., and Bargh, John A. (2005) *The New Unconscious*. Oxford, UK: Oxford University Press.
- Hastorf, Albert H., and Cantril, Hadley (1954) "They saw a game: A case study." *Journal of Abnormal and Social Psychology*, 49, 129-134.
- Hayakawa, S. I. (1953) *Symbol, Status, and Personality*. New York: Harvest Books.
- Heine, Steven J. and Renshaw, Kristen (2002) "Interjudge Agreement, Self-Enhancement, and Liking: Cross Cultural Divergences." *Personality and Social Psychology Bulletin*, 28, 5, 578-587.
- Hilgard, Ernest R. (1977) *Divided Consciousness: Multiple Controls in Human Thought and Action*. New York: Wiley.
- von Hippel, William, Lakin, Jessica, and Shakarchi, Richard J. (2005) "Individual Differences in Motivated Social Cognition: The Case of Self-Serving Information Processing." *Personality and Social Psychology Bulletin*, 31, 10, 1347-1357.
- Hirstein, William (2005) *Brain Fiction: Self Deception and the Riddle of Confabulation*. Cambridge, MA: MIT Press.
- Hobsbawn, Eric and Ranger, Terence eds. (1983) *The Invention of Tradition*. Cambridge, UK: Cambridge University Press.
- Hodgins, Holly S., Liebeskind, Elizabeth, and Schwartz, Warren (1996) "Getting out of hot water: Facework in social predicaments." *Journal of Personality and Social Psychology*, 71, 2, 300-314.
- Hoffman, Martin L. (2000) *Empathy and Moral Development: Implications for Caring and Justice*. Cambridge, UK: Cambridge University Press.
- Hollingworth, Andrew (2003) "Failure of Retrieval and Comparison Constrain Change Detection in Natural Scenes." *Journal of Experimental Psychology*, 29, 2, 388-403.
- Horowitz, Mardi J. (1998) *Cognitive Psychodynamics: From Conflict to Character*. New York: Wiley.

- Hrubes, Daniel, Feldman, Robert S., and Tyler, James M. (2004) "Emotion-Focused Deception: The Role of Deception in the Regulation of Emotion." In Philippot, P. and Feldman, R. S. *The Regulation of Emotion*. 227-249. Mahwah, NJ: Lawrence Erlbaum.
- Huntington, Samuel P. (1996) *The Clash of Civilizations and the Remaking of the World Order*. New York: Simon and Schuster.
- Huntington, Samuel P. (2004) *Who Are We? The Challenges to America's National Identity*. New York: Simon and Schuster.
- Ignatieff, Michael (1993) *Blood and Belonging: Journeys into the New Nationalism*. New York: Farrar, Straus, and Giroux.
- Inglehart, Ronald and Carballo, Marita (1997) "Does Latin America Exist? (And is there a Confucian Culture?): A Global Analysis of Cross-Cultural Differences." *PS: Political Science and Politics*, 30, 1, 34-47.
- Ito, Tiffany A., Thompson, Erin, Cacioppo, John T. (2004) "Neural mechanisms of social perception: The effects of racial cues on ERPs." *Personality and Social Psychology Bulletin*, 30, 10, 1267-1280.
- Jackendoff, Ray (1988) "Exploring the Form of Information in the Dynamic Unconscious." In Horowitz, M.J., ed. *Psychodynamics and Cognition*. 203-220.
- Jacob, Margaret C. (1997) *Scientific Culture and the Making of the Industrial West*. Oxford, UK: Oxford University Press.
- Jeannerod, Marc (1999) "To act or not to act: Perspectives on the representation of actions." *Quarterly Journal of Experimental Psychology*, 52A, 1-29.
- Johnson, Mark (1987) *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: The University of Chicago Press.
- Juge, Matthew L. and Moxley, Jeri O. eds. (1997) *Proceedings of the 23<sup>rd</sup> Annual Meeting of the Berkeley Linguistics Society*. Berkeley, CA: Berkeley Linguistics Society.
- Kahneman, Daniel (2002) "Maps of Bounded Rationality: A Perspective on Intuitive Judgment and Choice." Prize Lecture, December 8. Princeton University. Online.
- Kahneman, Daniel and Tversky, Amos (1996) "On the Reality of Cognitive Illusions." *Psychological Review*, 103, 3, 582-591.
- Kandel, Eric R. (2005) *Psychiatry, Psychoanalysis, and the New Biology of Mind*. Arlington, VA: American Psychiatric Publishing.
- Kawakami, Kerry and Dovidio, John F. (2001) "The reliability of implicit stereotyping." *Personality and Social Psychology Bulletin*, 27, 215-225.
- Kellenbach, Marion L., Wijers, Albertus A., Hovius, Marjolijn, Mulder, Juul, and Mulder, Gijsbertus (2002) "Neural Differentiation of Lexico-Syntactic Categories or Semantic Features?: Event-Related Potential Evidence for Both." *Journal of Cognitive Neuroscience* 14, 4, 561-577.
- Kitayama, Shinobu and Markus, Hazel R. (1994) *Emotion and Culture: Empirical Studies of Mutual Influence*. Washington D.C.: American Psychological Association.
- Kitayama, Shinobu, Duffy, Sean, Kawamura Tadashi, and Larsen, Jeff T. (2003) Perceiving an Object and its Context in Different Cultures. *Psychological Science* 14, No. 3, 201-6.
- Klein, Melanie (1975) *Envy and Gratitude & Other Works 1946-1963*. New York: Delacorte Press.
- Kohut, Heinz (1971) *The Analysis of the Self: A Systematic Approach to the Psychoanalytic Treatment of narcissistic Personality Disorders*. New York: International University Press.
- Kubie, Lawrence S. (1962) "The fallacious misuse of the concept of sublimation." *Psychoanalytic Quarterly*, 31, 73-79.
- Kuhn, Thomas (1962) *The Structure of Scientific Revolutions*. Chicago: Chicago University Press.
- Kunda, Ziva (1990) "The case for motivated reasoning." *Psychology Bulletin*, 108, 3, 480-498.
- Lacan, Jacques (1968) *Language of the Self: The Function of Language in Psychoanalysis*. Trans. Anthony Wilden. Baltimore, MD: John Hopkins University Press.

- Lacan, Jacques (1977) *Écrits: A Selection*. Trans. Alan Sheridan. New York: W.W. Norton.
- Lacan, Jacques (1991) *Le séminaire, Livre XVII: L'envers de la psychanalyse*. Edited by Jacques-Alain Miller. Paris: Seuil.
- Lakoff, George (1990) *Women, Fire, and Dangerous Things*. Chicago: University of Chicago Press.
- Lakoff, George (1997) "How Unconscious Metaphorical Thought Shapes Dreams." In Stein, D.J., ed. *Cognitive Science and the Unconscious*. 89-120. Washington, D.C.: American Psychiatric Press.
- Lakoff, George and Johnson, Mark (1980) *Metaphors We Live By*. Chicago: University of Chicago Press.
- Lakoff, George and Johnson, Mark (1999) *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.
- Langacker, Ronald (1987) *Foundations of Cognitive Grammar. Vol. 1. Theoretical Prerequisites*. Stanford: Stanford University Press.
- Langacker, Ronald (1993) "Reference-point Constructions." *Cognitive Linguistics*, 4, 1, 1-38.
- Langacker, Ronald (2002) *Concept, Image, and Symbol: The Cognitive Basis of Grammar*. 2<sup>nd</sup> edition. Berlin: Mouton de Gruyter.
- LeDoux, Joseph (1996) *The Emotional Brain*. New York: Simon and Schuster.
- Levy, Benjamin J. and Anderson, Michael C. (2002) "Inhibitory processes and the control of memory retrieval." *Trends in Cognitive Sciences*, 6, 7, 299-305.
- Linguistic Society of Korea, ed. (1982) *Linguistics in the Morning Calm*. Seoul: Hanshin.
- Lippi-Green, Rosina (1997) *English with an Accent: Language, ideology, and discrimination in the United States*. London: Routledge.
- Lucy, John A. (1992) *Grammatical categories and cognition: A case study of the linguistic relativity hypothesis*. Cambridge, U.K.: Cambridge University Press.
- Markman, Arthur B., and Gentner, Dedre (2000) "Structure mapping the comparison process." *American Journal of Psychology, Winter, Vol 113, No. 4*, 501-538.
- Markman, Arthur B., and Gentner, Dedre (2005) "Nonintentional similarity processing." In Hassin, R.R., Bargh, J.A., Uleman, J.S., eds. *The New Unconscious* (107-137). New York: Oxford University Press.
- Markus, Hazel and Nurius, Paula (1986) "Possible selves." *American Psychologist*, 41, 954-969.
- McFarlin, D. B., and Blascovich, J. (1981) "Effects of self-esteem and performance feed-back on future affective preferences and cognitive expectations." *Journal of Personality and Social Psychology*, 40, 521-531.
- Metcalfe, Janet, and Mischel, Walter (1999) "A hot/cool-system analysis of delay of gratification: Dynamics of willpower." *Psychological Review*, 106, 3-19.
- Milgram, Stanley (1963) "Behavioral study of obedience." *Journal of Abnormal and Social Psychology*, 67, 371-378.
- Mitroff, Stephen R., Simons, Daniel J., and Levin, Daniel T. (2004) "Nothing compares 2 views: Change blindness can occur despite preserved access to the changed information." *Perception & Psychophysics*, 66, 8, 1286-1281.
- Moore, Burness E. and Fine, Bernard D. eds. (1990) *Psychoanalytic Terms and Concepts*. New Haven, CT: The American Psychoanalytic Association and Yale University Press.
- Myers, Lynn B. Brewin, Chris, and Power, Mick J. (1998) "Repressive coping and the directed forgetting of emotional material." *Journal of Abnormal Psychology*, 107, 1, 141-148.
- Newell, Allen and Simon, Herbert A. (1972) *Human Problem Solving*. Englewood Cliffs, NJ: Prentice-Hall.
- Niemeier, Susanne and Dirven, René eds. (2000) *Evidence for Linguistic Relativity*. Amsterdam: John Benjamins.
- Nisbett, Richard E., Peng, K., Choi, I., and Norenzayan, A. (2001) "Culture and systems of thought: Holistic versus analytic cognition." *Psychological Review*, 108, 291-310.
- Oller, D. Kimbrough and Griebel, Ulrike eds. (2004) *Evolution of Communication Systems: A Comparative Approach*. Cambridge, MA: MIT Press.



- Paulhus, Delroy L., Harms, P. D., Bruce, M. Nadine, and Lysy, Daria C. (2003) "The Over-Claiming Technique: Measuring Self-Enhancement Independent of Ability." *Journal of Personality and Social Psychology*, 84, 4, 890-904.
- Paulhus, Delroy, L. (1998) "Interpersonal and Intrapyschic Adaptiveness of Trait Self-Enhancement: A Mixed Blessing?" *Journal of Personality and Social Psychology*, 74, 5, 1197-1208.
- Payne, B. Keith (2001) "Prejudice and perception: The role of automatic and controlled processes in misperceiving a weapon." *Journal of Personality and Social Psychology* 81. 181-192.
- Peirce, Charles S. (1940) *The Philosophy of Peirce* ed. by Buchler, J. New York: Harcourt, Brace.
- Perrott, David A., Gentner, Dedre, and Bodenhausen, Galen V. (2004) "Resistance is Futile: The Unwitting Insertion of Analogical Inferences in Memory." *Psychonomic Bulletin and Review* 12, 696-702.
- Petrie, Hugh G. and Oshlag, Rebecca S. (1979) "Metaphor and Learning." In Ortony, A., ed. *Metaphor and Thought Second Edition*, 1993. 579-609.
- Phelps, Elizabeth A. and Thomas, Laura A. (2003) "Race, Behavior, and the Brain: The Role of Neuroimaging in Understanding Complex Social Behaviors." *Political Psychology*, 24, No. 4.
- Popper, Karl (1959) *The Logic of Scientific Discovery*. New York: Basic Books.
- Pulvermüller, Friedmann, Hauk, Olaf, Nikulin, Vadim V. Ilmoniemi, Risto J. (2005) "Functional links between motor and language systems." *European Journal of Neuroscience*, 21, 3, 793-797.
- Pulvermüller, Friedmann, Lutzenberger, Werner, and Preissl, Hubert (1999) "Nouns and Verbs in the Intact Brain: Evidence from Event-related Potentials and High-frequency Cortical Responses." *Cerebral Cortex* 9, 5, 497-506.
- Pulvermüller, Friedmann, Preissl, Hubert, Lutzenberger Werner, and Birbaumer, Niels (1996) "Brain rhythms of language: nouns and verbs." *European Journal of Neuroscience*, 8, 5, 937-941.
- Pütz, Martin and Verspoor, Marjolijn H. eds. (2003) *Explorations in Linguistic Relativity*. Amsterdam: John Benjamins.
- Rawls, John (1971) *A Theory of Justice*. Cambridge, MA: Harvard University Press.
- Rawls, John (1999) *The Law of Peoples with The Idea of Public Reason Revisited*. Cambridge, MA: Harvard University Press.
- Rensink, Ronald A. (2002) "Change detection." *Annual Review of Psychology*, 53, 245-277.
- Richards, Ivor A. (1936) *The Philosophy of Rhetoric*. London: Oxford University Press.
- Richeson, Jennifer A., Baird, A.A., Gordon, J.L., Heatherton, T.F., Wyland, C.L., Trawalter, S., et al. (2003) "An fMRI investigation of the impact of interracial contact on executive function." *Nature Neuroscience* 6, 1323-1328.
- Rorsch, Eleanor, and Lloyd, B.B. eds. (1978) *Cognition and Categorization*. Hillsdale, N.J.: Lawrence Erlbaum Associates.
- Ross, Michael (1989) "Relation of implicit theories to the construction of personal histories." *Psychological Review*, 96, 341-357.
- Ross, Michael, Heine, Steven, Wilson, Anne E., Sugimori, Shinkichi (2005) "Cross-Cultural Discrepancies in Self-Appraisals." *Personality and Social Psychology Bulletin*, 31, 9, 1175-1188.
- Rubin, David C. ed. (1996) *Remembering Our Past: Studies in Autobiographical Memory*. Cambridge, UK: Cambridge University Press.
- Santa Ana, Otto (2003) "Three mandates for anti-minority policy expressed in U.S. public discourse metaphors." In Driven, René, et al. eds. *Cognitive Models in Language and Thought: Ideology, Metaphors and Meanings*. 199-227. Berlin: Mouton de Gruyter.
- Schachter, Stanley and Singer, Jerome (1962) "Cognitive, social, and physiological determinants of emotional state." *Psychological Review*, 69, 379-399.
- Schacter, Daniel L. and Scarry, E. eds. (2000) *Memory, brain, and belief*. Cambridge, MA: Harvard University Press.

- Schmidt, Gwen L., Debusse, Casey, J., and Seger, Carel A. (2005) "Right hemisphere metaphor processing? Characterizing the lateralization of semantic processes." *Brain and Language*, article in press, available online 6 April 2005.
- Shapiro, Kevin A., Mottaghy, Felix M., Schiller, Niels O., Poeppel, Thorsten D., Flöß, Michael O., Müller, H.-W., Caramazza, Alfonso, and Krause, Bernd J. (2005) "Dissociating neural correlates for nouns and verbs." *NeuroImage* 24, 4, 1058-1067.
- Shevrin, Howard, Bond, J.A., Brakel, A.W., Hertel, R.K., and Williams, W.J. (1996) *Conscious and Unconscious Processes: Psychodynamic, Cognitive, and Neurophysiological Convergences*. New York: Guilford Press.
- Simons, Daniel J. and Levin, Daniel T. (1998) "Failure to detect changes to people during a real-world interaction." *Psychonomic Bulletin and Review*, 5, 644-649.
- Simons, Daniel J., Chabris, Christopher F., Schnur, Tatiana T., and Levin, Daniel T. (2002) "Evidence for preserved representations in change blindness." *Consciousness and Cognition*, 11, 78-97.
- Singer, Jefferson A., and Salovey, Peter (1993) *The remembered self*. New York: Free Press.
- Spencer, Steven J., Fein, S., Zanna, M. P., and Olson, J. M. eds. (2003) *Motivated social perception: The Ontario Symposium Vol. 9*, 21-44. Mahwah, NJ: Erlbaum.
- Squire, Larry R. and Kandel, Eric R. (1999) *Memory: From Mind to Molecules*. New York: Scientific American Library.
- Stein, Dan J. ed. (1997) *Cognitive Science and the Unconscious*. Washington D.C.: American Psychiatric Press.
- Tafarodi, Romin W., Marshall, Tara C., and Milne, Alan B. (2003) "Self-Esteem and Memory." *Journal of Personality and Social Psychology*, 84, 1, 29-45.
- Taylor, John R. (2002) *Cognitive Grammar*. Oxford: Oxford University Press.
- Tettamanti, Marco, Buccino, G., Saccuman, M. C., Gallese, V., Danna, M., Scifo, P., Fazio, F., Rizzolatti, G., Cappa, S. F. and Perani, D. (2005) "Listening to Action-related Sentences Activates Fronto-parietal Motor Circuits." *Journal of Cognitive Neuroscience*, 17, 273-281.
- Tversky, Amos and Kahneman, Daniel (1983) "Extensional vs. intuitive reasoning: The conjunction fallacy in probability judgment." *Psychological Review*, 90, 293-315.
- Tyler, James M. and Feldman, Robert S. (2005) "Deflecting Threat to One's Image: Dissembling Personal Information as a Self-Presentation Strategy." *Basic and Applied Social Psychology*, 27, 4, 371-378.
- Tyler, Lorraine K., Russell, Richard, Fadili, Jalal, and Moss, Helen E. (2001) "The neural representation of nouns and verbs: PET studies." *Brain*, 124, 1619-1634.
- Vogel, Edward K., McCollough, A.W., and Machizawa, M.G. (2005) "Neural measures reveal individual differences in controlling access to working memory." *Nature* 438, 500-503. (24 November).
- Wegner, Daniel M. (2002) *The Illusion of Conscious Will*. Cambridge, MA: MIT Press.
- Wicklund, Robert A. and Steins, Gisela (1996) "Person Perception under Pressure: When Motivation Brings about Egocentrism." In Gollwitzer P.M. and Bargh, J.A. eds. *The Psychology of Action: Linking Cognition and Motivation to Behavior*. 511-528.
- Wierzbicka, Anna (1997) *Understanding Cultures Through Their Key Words: English, Russian, Polish, German, and Japanese*. Oxford: Oxford University Press.
- Woike, Barbara, Gershkovich, Irina, Piorkowski, Rebecca, and Polo, Marilyn (1999) "The role of motives in the content and structure of autobiographical memory." *Journal of Personality and Social Psychology*, 76, 600-612.